2013-2035 Metropolitan Transportation Plan

For the Jefferson City, Missouri Urbanized Area

Approved and adopted

May 15, 2013

Capital Area Metropolitan Planning Organization

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Acknowledgement:

A large number of people took the time and effort to attend public meetings, respond to questions and surveys, and attend working meetings. Without the dedication and public spirit shown, the task of developing a reasonable transportation plan would have been impossible.

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CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

RESOLUTION 2013-01

A RESOLUTION ADOPTING THE 2035 METROPOLITAN TRANSPORTATION PLAN FOR THE CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

WHEREAS, the Board of Directors is the executive body of the Capital Area Metropolitan Planning Organization (CAMPO), designated by the Governor of the State of Missouri to carry out the provisions of Section 134 Title 23 U. S. Code and Section 5503 Title 49 U.S. Code for the Jefferson City Urbanized Area; and

WHEREAS, the federal regulations for metropolitan transportation planning and programming, as specified in 23 CFR Part 450.308, requires that CAMPO develop a long range transportation plan as part of the continuing, cooperative, and comprehensive transportation planning process; and

WHEREAS, a long range transportation plan covers a planning horizon of at least 20 years, and fosters (1) mobility and access for people and goods, (2) efficient system performance and preservation, and (3) quality of life; and

WHEREAS, the CAMPO 2035 Metropolitan Transportation Plan has been developed in accordance with requirements of the Federal Highway Administration and the Federal Transit Administration.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors hereby approves and adopts the 2035 Metropolitan Transportation Plan for the Capital Area Metropolitan Planning Organization.

Adopted this 15th day of May, 2013.

Jeff Hoelscher, Chairman

Attest: Anne Stratman

Anne Stratman, Administrative Assistant

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Prologue: National Directives, Goals and Objectives

The Long Range Transportation Plan or as it's come to be known, the Metropolitan Transportation Plan is mandated by the federal government through a series of federal statutes accompanied by a host of regulations. This first section identifies the national objectives of metropolitan transportation planning, and directs the reader to additional reading in Appendix 5 to review the Federal purposes **of** the Public Transportation Program.

National Policy Statement of MAP-21, Metropolitan Transportation Planning section

(a) Policy - It is in the national interest

(1) to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes identified in this Section; and

(2) to encourage the continued improvement and evolution of the metropolitan and statewide transportation planning processes by metropolitan planning organizations, State departments of transportation, and public transit operators as guided by the planning factors identified in subsection **(h)** and section **135(d)** of 23 U.S.C.

National Objectives - Metropolitan Transportation Planning

MAP-21 continues the requirement to develop an MTP (and a Transportation Improvement Program or TIP) **in order to accomplish these national objectives:** [1] Specifically, "to accomplish the objectives in 1-4, metropolitan planning organizations, in cooperation with the State and public transportation operators, shall develop long-range transportation plans (also referred to as the MTP) and transportation improvement programs through a performance-driven, outcome-based approach to planning for metropolitan areas of the State", as per MAP-21:

The contents of the MTP and also the TIP …"for each metropolitan area shall provide for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the metropolitan planning area and as an integral part of an intermodal transportation system for the State and the United States."

The current transportation act, MAP-21 contains the "National Objectives" that the legislation expects to be accomplished in part through the statewide and metropolitan transportation planning process.

The Metropolitan Transportation Planning **National Objectives** contained in MAP-21 are:

1. Encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight
2. Foster economic growth and development within and between States and urbanized areas
3. Minimize transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes and
4. Encourage the continued improvement and evolution of the metropolitan and statewide transportation planning processes by metropolitan planning organizations, State departments of transportation, and public transit operators as guided by the eight planning factors.

Also included in this same federal legislation is a section stating that this "scope of the planning process", should be based on the scale and complexity of many issues, including transportation system development, land use, employment, economic development, human and natural environment, and housing and community development." This is an important statement since there are significant resources dedicated to do metropolitan planning and MPOs are not the same, CAMPO is one of many

small MPOs and has extremely limited resources.

Factors and Requirements Considered in the Metropolitan Transportation Planning Process

Federal legislation identifies several factors that must be considered to fulfill the MAP-21 planning process requirements[2]. The following section describes the newest regulatory items that CAMPO must consider in the development of the Metropolitan Transportation Plan.

The Scope of the Planning Process: The Eight Planning Factors

The eight planning factors are identified as the process to achieve one of four national objectives detailed in the Metropolitan Transportation Planning National Objectives section included in the plan.

(h) (1) The metropolitan planning process for a metropolitan planning area under this section is carried over from the previous federal transportation legislation and shall provide for consideration of projects and strategies that will:

(A) support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

(B) increase the safety of the transportation system for motorized and non-motorized users;

(C) increase the security of the transportation system for motorized and non-motorized users;

(D) increase the accessibility and mobility of people and for freight;

(E) protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

(F) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

(G) promote efficient system management and operation; and

(H) emphasize the preservation of the existing transportation system.[3]

Subsection H2 describes the continued linkage from the initial Metropolitan Transportation Planning Objectives and the planning factors above, to the performance based approach intended to produce a performance based outcome to federal transportation planning:

(h) (2) Performance-based approach. -

(A) In general. - The metropolitan transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decision making to support the national goals described in section **150(b)** of this title and in section 5301(c) of title 49.

23 U.S.C. Sec. 150. National goals and performance management measures[4]

(a) Declaration of Policy. - Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal-aid highway program, and improving project decision-making through performance-based planning and programming.

(b) National Goals. - It is in the interest of the United States to focus the Federal-aid highway program on the following national goals: [5]

(1) Safety. - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

(2) Infrastructure condition. - To maintain the highway infrastructure asset system in a state of good repair.

(3) Congestion reduction. - To achieve a significant reduction in congestion on the National Highway System.

(4) System reliability. - To improve the efficiency of the surface transportation system.

(5) Freight movement and economic vitality. - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

(6) Environmental sustainability. - To enhance the performance of the transportation system while protecting and enhancing the natural environment.

(7) Reduced project delivery delays. - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

CAMPO is addressing these national goals by anticipating the future integration into the metropolitan transportation planning process, by reference, the goals, objectives, performance measures, and targets described in MoDOT's State transportation plans and transportation processes, when developed, as well as any plans developed under chapter 53 of title 49 by providers of public transportation, required as part of a performance-based program.

Rulemaking by the FHWA regarding the establishment of performance measures and standards shall be completed no later than 18 months after the enactment of MAP-21, which was enacted July 17, 2012. State DOTs have no later than 1 year after rulemaking to establish performance targets that reflect these measures and standards. Upon the establishment of these targets and measures by MoDOT and FHWA, CAMPO will either adopt MoDOT's targets by reference or establish alternative measures.

<u>General Federal Requirements of the Metropolitan Transportation Plan</u>

(a) General Requirements -

(1) Development of long-range plans and tips. - To accomplish the objectives in subsection (a), metropolitan planning organizations designated under subsection (d), in cooperation with the State and public transportation operators, shall develop long-range transportation plans and transportation improvement programs through a performance-driven, outcome-based approach to planning for metropolitan areas of the State.

(2) Contents. - The plans and TIPs for each metropolitan area shall provide for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the metropolitan planning area and as an integral part of an intermodal transportation system for the State and the United States.

(3) Process of development. - The process for developing the plans and TIPs shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problems to be addressed.

Section 1: The Metropolitan Transportation Plan

Metropolitan Transportation Planning Concept

A good starting point is to review several important concepts: the Metropolitan Transportation Plan, an Urbanized Area, the Metropolitan Planning Organization, and the Metropolitan Planning Area.

A Metropolitan Transportation Plan (MTP), referred to as a Long Range Transportation Plan in the past, is a requirement for all urbanized areas that have a Metropolitan Planning Organization (MPO).

An Urbanized Area (UA) is an area that contains a city of 50,000 or more in population plus the incorporated surrounding areas meeting size or density criteria as defined by the U.S. Census Bureau.[6]

When an area has been identified as an urbanized area, by the US Department of Commerce Census Bureau, and designated as such by the Office of Management and Budget, a transportation planning organization such as a Metropolitan Planning Organization must be formed by agreement of the Governor of the state and "units of general purpose local governments representing 75% of the affected metropolitan population" to coordinate metropolitan transportation planning and transportation related investments.[7]

A Metropolitan Planning Organization is a transportation policy-making body made up of representatives from local government and transportation agencies with authority and responsibility in metropolitan planning areas. Federal legislation passed in the early 1970s required the formation of an MPO for any urbanized area (UA). The MPO mandate is still in the Federal legislation today.

This policy-making organization made up of representatives from local governments, key transportation entities and transportation authorities has five "core" functions:[8]

1. To establish and manage a fair and impartial setting for effective regional decision-making in the metropolitan area.
2. Evaluate transportation alternatives, scaled to the size and complexity of the region, to the nature of its transportation issues, and to the realistically available options.
3. Develop and update a long-range transportation plan for the metropolitan area covering a planning horizon of at least 20 years that fosters (1) mobility and access for people and goods, (2) efficient system performance and preservation, and (3) quality of life.
4. Develop a Transportation Improvement Program based on the long-range transportation plan and designed to serve the area's goals, using spending, regulating, operating, management, and financial tools.
5. Involve the general public and all the significantly affected sub-groups in the four essential functions listed above.

A Metropolitan Planning Area (MPA) is defined in the Code of Federal Regulations[9] as the geographic area in which the metropolitan transportation planning process must be carried out.[10] "The MPA boundary shall, as a minimum, cover the Urbanized Area and the contiguous geographic area(s) likely to become urbanized within the twenty year forecast period covered by the transportation plan. The MPA boundary may encompass the entire metropolitan statistical area or consolidated metropolitan statistical area, as defined by the Census Bureau."

And, as with prior legislation, the 3C process is continued. "The process for developing the plans and TIPs shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problems to be addressed".

For an MPO such as CAMPO, the MTP is updated at least every 5 years, and more frequently if the MPO elects to and must have at least a twenty-year planning horizon, meaning that the plan tries to anticipate the needs and required resources, 20 years into the future.

Goals and Objectives of the MPO

The Vision: Enhance regional quality of life

The Primary Goal: Infrastructure support for community health and economic growth

Objectives:

1. Improve the safety for all travel modes: reduce frequency and severity of crashes, for motorized, and non-motorized modes of travel
    i. Increase sidewalk mileage and condition
    ii. Improve number and locations of crosswalks
    iii. Improve street and roadway operations practices
    iv. Identify locations for potential safety projects
2. Reduce traffic congestion and delay
    i. Support travel demand modeling
    ii. Improve management and operations programs
    iii. Support access management programs
    iv. Identify locations for congestion projects
3. Identify and support activities that encourage economic development
    i. Corridor Preservation: Preserve motorized and motorized transportation corridors for future growth
    ii. Improve asset management capabilities and life cycle planning
    iii. Improve airport infrastructure, operations and capabilities
4. Improve freight, multimodal and intermodal movement
    i. Identify potential freight related projects
    ii. Improve existing multimodal and intermodal freight related facilities
    iii. Support improvements to freight rail
    iv. Support projects that have multimodal improvements
    v. Improve transit operations and connectivity
5. Improve non-motorized travel opportunities and facilities
    i. Build and maintain sidewalks and greenways
    ii. support improvements to passenger rail system

The Capital Area Metropolitan Planning Organization (CAMPO)

CAMPO is the designated MPO for the Jefferson City urbanized area in 2002 and consists of a Board of Directors, a Technical Committee, and the planning and administrative staff.

The Board of Directors consists of elected representatives and appointed officials of Holts Summit, Jefferson City, Callaway County, Cole County, state agencies, and Federal transportation representatives serving as ex-officio members. The Technical Committee consists of representatives from the agencies' professional staffs and acts in an advisory capacity.

CAMPO was formally established with the development of membership, bylaws, and the completion of a Memorandum of Understanding in March of 2003. The MOU was drafted with cooperation of Lake Mykee, Holts Summit, St. Martins, Jefferson City, Callaway County, and Cole County, followed by the approval of the Governor of Missouri on May 7, 2003.

This MTP is the update of the first Metropolitan Transportation Plan and uses population, land use, socio-economic data, traffic data, accident data, and other information that may affect the transportation system in an effort to plan not just for five to ten years out, but also for long range planning, extending out to at least 20 years into the future.

Capital Area Metropolitan Planning Organization Demographics Update

Trend #1 - Population Growth

The CAMPO Metropolitan Planning Area, as it is in 2013 experienced a population growth of approximately 9.2% between years 2000 to 2010. The population grew by 6,651 persons, from 65,346 in 2000 to 71,997 in 2010.

Location of Population Growth

Most of this growth occurred on the urban fringes, primarily in and around Holt Summit in Callaway County, western Jefferson City to St. Martin's and to the south in the Wardsville area.

Trend # 2 - The population is aging.

The median age is the age at the midpoint of the population, so half of the population is older than the median age and half of the population is younger. The median age is often used to describe the "age" of a population.

In 2000, the median age was 34.7 years for Callaway County and 35.5 years for Cole County

In 2010, the median age was 37.7 for Callaway County and 37.7 for Cole County.

Table 1: Median Age of the MPA from 2000 to 2010

Median Age	Callaway		Cole	
	2000	2010	2000	2010
Both Sexes	34.7	37.7	35.5	37.7
Males	34	36.8	34.4	36.8
Females	35.4	38.6	36.9	38.8

Trend # 3 - Demographic Shifts

A notable shift occurred in increased racial diversification. In 2000, 86.3% of the population was classified as White. This ratio declined to 83.4% in 2010. Between the years 2000 – 2010, the rate of growth for the White population was 6%, while the Non-White population grew 25%.

The following table shows the shift in racial composition of the MPA.

Table 2: Racial Composition of the MPO

Population	**Year 2000**	**Year 2010**	**Change in Population Numbers from 2000 to 2010**	**Percent of Total Population in 2010**	**Percentage Change 2000-2010**
Total	65,346	71,997	6,651		9.24%
White	56,402	60,030	3,628	83.38%	6.04%
Non-White	8,944	11,967	3,023	16.62%	25.26%
Black or African American	6,446	8,613	2,167	11.96%	25.16%
Asian	466	957	491	1.33%	51.31%
American Indian & Alaska Native	123	240	117	0.33%	48.75%
Native Hawaiian & Other Pacific Islander	9	46	37	0.06%	80.43%
Some Other Race	280	685	405	0.95%	59.12%
Hispanic or Latino (of any race)	710	1,855	1,145	2.58%	61.73%

The areas of the MPO with the highest minority populations include the downtown Jefferson City area, the western portion of region, and the eastern portion. However, the eastern portion concentration is due to the location of state prison facilities that moved from the more central part of Jefferson City.

For more detailed information about demographics, area characteristics or commute patterns please refer to Appendix 3.

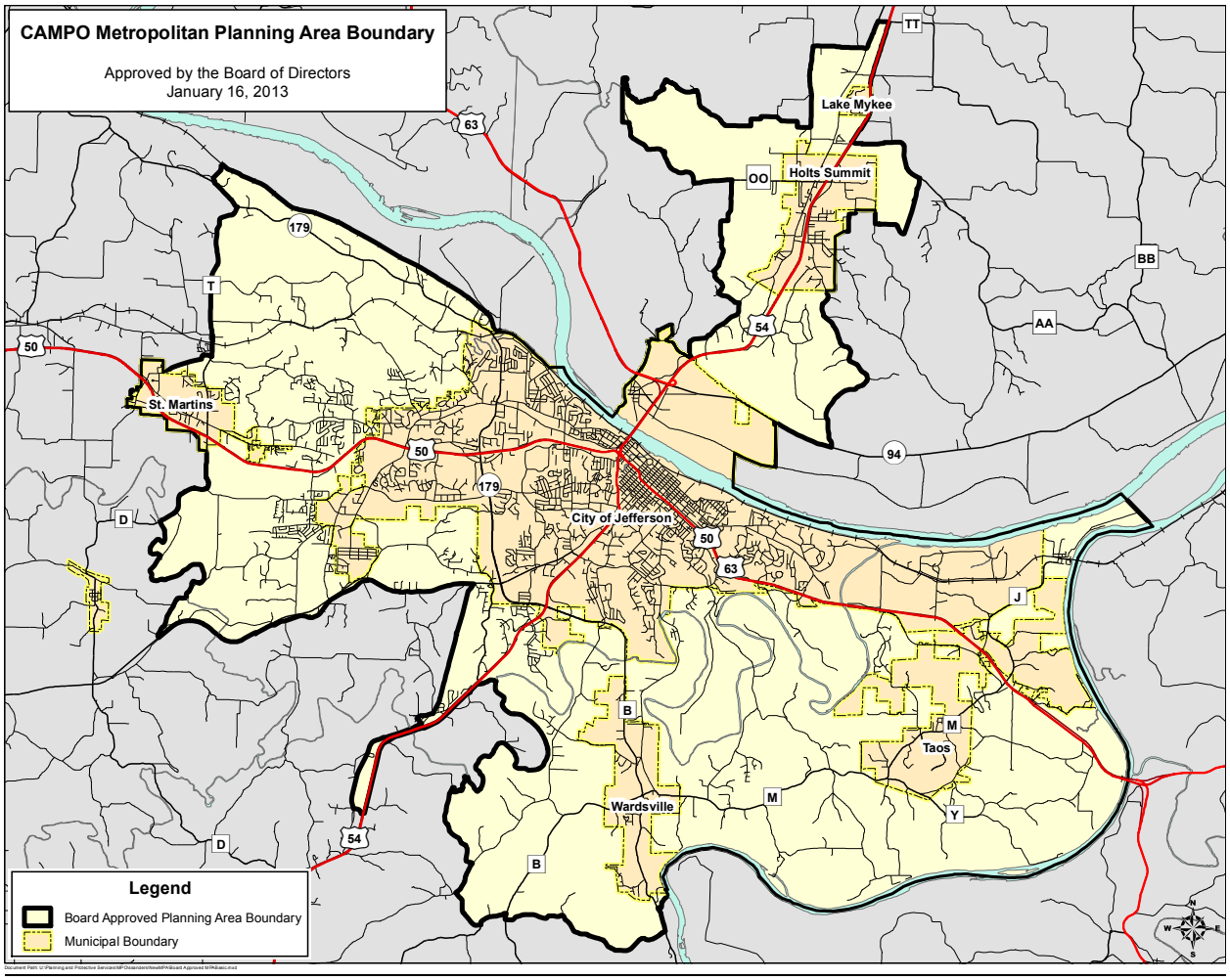
Geographic Region Covered By the Plan

The MTP covers the entire MPA. The CAMPO Metropolitan Planning Area, as delineated by the CAMPO Board of Directors and approved by the Governor, contains the urbanized area and portions of unincorporated, non-urbanized areas within Cole and Callaway Counties, with a population of 71,997. With the new MAP boundary, it covers 152.7 sq. miles, with 23.2 square miles in Callaway County, and 129.5 square miles within Cole County.

With the results of the 2010 Census counts and geographic boundaries in, the MPO and MoDOT revised the adjusted urban area, and the Board of Directors revised the Metropolitan Planning Area of MPA to expand to the southeast, and contract in the northeast and northwest, in Callaway County.

This designation includes the original portions of the northern Cole County, part of southern Callaway County, the City of Jefferson, the City of St. Martins, the City of Holts Summit, and the Village of Lake Mykee, and will include the municipalities of Taos and Wardsville Missouri beginning in year 2013.

Figure 1: Map of CAMPO MPA and Surrounding Area.



MTP Development

Developing the CAMPO Metropolitan Transportation plan is a cooperative process that includes planning, technical, and engineering staffs of CAMPO member counties and cities, the Missouri Department of Transportation, natural resource agencies, local elected officials, non-profit organizations, private agencies, citizen committees, and neighborhood residents.

Public participation in the development or update of plans and informational sessions is a priority for CAMPO. Open meetings and opportunities to address the Technical Committee and Board of Directors occur at every meeting. Participation in focus groups and ad hoc committees occur on an "as needed" basis, with information access provided by personal visits to offices of staff and CAMPO members, online documents and information, documentation made available at public offices and libraries, and availability of formal policy documents such as the Public Participation Plan.

For CAMPO, the metropolitan transportation plan development process began with an inventory of the current transportation system as an inter-related, multi-modal system, followed by street and roadway traffic counts for average annual daily traffic (AADT) counts, and intersection turning movements.

From there, the current population from the 2010 census was used as a base population and an estimate of future population growth was forecast out to 2035. 2010-2035 growth rates are based on the Missouri State Demographer forecasts. CAMPO staff also inventoried the current land uses within the Metropolitan

Planning Area (MPA) of CAMPO in preparation for forecasting land uses for the MTP planning horizon out to 2035 through the use of parcel data from Cole and Callaway Counties.

Based on population growth forecasts, the next step was to develop an estimate of future development and housing growth for the CAMPO area. Housing was evaluated through 2010 census data and building permits, to help determine a level of existing housing stock, and then using an average household size to estimate the number of additional housing units needed, staff used subdivided but undeveloped parcels to identify potential residential building sites. Undeveloped parcels suitable for residential development were allocated the remaining estimated unmet housing needs to meet total number of housing units required for 2035.

Known and probable future commercial development locations were identified and located throughout the CAMPO area. For this, studies of development plans, existing land use and transportation plans for the region were used, in addition to consultation with city, county and state professional staff.

Using estimates of future land use needs allows the modeling of estimated future travel demand. To accomplish this, CAMPO hired a travel demand modeling consultant to develop a model to forecast future travel demand.

Determining the future demand for travel and the strategies for accommodating this demand, allows determination of a general level and type of infrastructure investment that will be necessary over the next 20 years, and planning estimates of the cost of new transportation system infrastructure.

The Relationship of the Transportation Plan to Other Plans

The Metropolitan Transportation Plan takes into consideration, the local comprehensive and special purpose plans such as special districts, zoning and land use, transit and roadway plans, airport and aviation plans, water and rail transport, air quality and congestion plans if available.

In addition to this, the Metropolitan Transportation Plan strives to be consistent with local growth and economic development plans. **The following plans are incorporated into the MTP by reference.**

Local and regional plans used in the production of this plan include:

- Callaway County Hazard Mitigation Plan
- Callaway County Emergency Management Plan
- CAMPO Travel Demand Model
- CAMPO Long Range Transportation Plan – April, 2008
- City of Holts Summit Interim Long Range Transportation Plan
- City of Jefferson Sewerage Master Plan Update – 2009
- City of Jefferson Greenways Master Plan
- City of Jefferson Southside Redevelopment Plan
- City of Jefferson Central East side Neighborhood Plan - 2005
- City of Jefferson Transit Feasibility Study - December 2010
- City of Jefferson Transit Development Plan – March 2006
- City of Jefferson Historic Preservation Commission Preservation Plan - July, 2010
- City of Jefferson Memorial Airport Layout Master Plan - 2011
- Cole County Missouri 2010 County Master Plan
- Cole County Hazard Mitigation Plan
- Cole County Emergency Management Plan
- County-Wide Transportation Study Cole County and City of Jefferson – September, 2003
- Mid-Missouri Regional Planning Commission Regional Transportation Plan
- Missouri River Freight Corridor Assessment & Development Plan – September, 2011
- Missouri Statewide Transportation Improvement Program
- Missouri State Penitentiary Redevelopment Plan (as of 2008)

- Missouri State Rail Plan – May, 2012
- Missouri State 2013 Highway Safety Plan & Performance Plan – Date unknown
- MoDOT Whitton Expressway Environmental Impact Study - 2012
- St. Martins Long Range Transportation Plan – 2009/2011[11]

For an MPO, the Transportation plan must consider previous or existing local plans, and there have been several transportation and transportation/development related studies for areas within the CAMPO transportation planning area that are taken into consideration.

Public Participation

CAMPO has a responsibility to coordinate the metropolitan transportation planning process. Having this responsibility requires that CAMPO actively involve all affected parties in an open, cooperative, and collaborative process, and provide meaningful opportunities to influence transportation decisions.[12]

FHWA and FTA have identified several performance standards for effective public participation, and these standards are supported by CAMPO.[13] These standards include:

1. Early and continuous involvement
2. Reasonable public availability of technical and other information
3. Collaborative input on alternatives, evaluation criteria, and mitigation needs
4. Open public meetings where matters related to transportation policies, programs, and projects are being considered, and
5. Open access to the decision making process prior to closure

The Metropolitan Planning Organization has a Public Participation Plan in place and is available for viewing online at www.jeffcitymo.org/cd/CAMPO/publicparticipation.html.[14]

Environmental Justice and Non-Discrimination in Transportation Services

The Environmental Protection Administration defines environmental justice as: "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.

Meaningful involvement means that: (1) people have an opportunity to participate in decisions about activities that may affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) their concerns will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected.[15]

Executive Order 12898 requires that each Federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment. It aims to provide minority and low-income person's access to public information and public participation in matters relating to human health and the environment[16].

According to Federal publications, Environmental Justice has three fundamental principles:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

When transportation projects and investments are considered, one of the requirements of CAMPO is to see that Environmental Justice requirements and principles are integrated into the processes and plans, taking into consideration positive and negative impacts of projects and programs on areas of high minority and/or low income populations to determine that disproportionate negative impacts are not placed on the populations of these areas.

Title VI Nondiscrimination Policies

It is the policy of CAMPO that as general principle and CAMPO also certifies that no person is excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the basis of race, color, or national origin under Title VI and related nondiscrimination statutes.

To certify compliance with environmental justice, CAMPO incorporates the following activities into the planning processes, (MPO requirements as identified by the Federal Highway Administration), and works towards the following:

1. Enhancement of analytical capabilities to ensure that the long-range transportation plan and the transportation improvement program (TIP) comply with Title VI.
2. Identify residential, employment, and transportation patterns of low-income and minority populations so that their needs can be identified and addressed, and the benefits and burdens of transportation investments will be fairly distributed.
3. Evaluate, and where necessary, improve public involvement processes to eliminate participation barriers and engage minority and low-income populations in transportation decision-making.

Low Income

For purposes of Title VI and Environmental Justice, what is considered "low-income"?

FHWA defines "low-income" as "a person whose household income is at or below the Department of Health and Human Services poverty guidelines." Here again, under certain conditions, a State or locality may adopt a higher threshold for low-income. The conditions are that the higher threshold may not be implemented selectively and the threshold is inclusive of all persons at or below the HHS poverty guidelines.

FHWA documents provide a Title VI Definition of Low Income[17] (and Low Income Population)

Low-Income =A household income at or below the Department of Health and Human Services 2011 poverty guidelines of $22,350 for a family of four.

Low-Income Population = any readily Identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy, or activity.

Table 3: 2011 HHS Poverty Guidelines

Size of family unit	100 Percent of Poverty	110 Percent of Poverty	125 Percent of Poverty	150 Percent of Poverty	175 Percent of Poverty	185 Percent of Poverty	200 Percent of Poverty
1	$11,170	$12,287	$13,963	$16,755	$19,548	$20,665	$22,340
2	$15,130	$16,643	$18,913	$22,695	$26,478	$27,991	$30,260
3	$19,090	$20,999	$23,863	$28,635	$33,408	$35,317	$38,180
4	$23,050	$25,355	$28,813	$34,575	$40,338	$42,643	$46,100
5	$27,010	$29,711	$33,763	$40,515	$47,268	$49,969	$54,020
6	$30,970	$34,067	$38,713	$46,455	$54,198	$57,295	$61,940
7	$34,930	$38,423	$43,663	$52,395	$61,128	$64,621	$69,860
8	$38,890	$42,779	$48,613	$58,335	$68,058	$71,947	$77,780

Source: http://www.liheap.ncat.org/profiles/povertytables/FY2013/popstate.htm
For all states (except Alaska and Hawaii) and for the District of Columbia.
Note: For optional use in FFY 2012 and mandatory use in FFY 2013

Mobility and Disability

Mobility may have more than one definition, depending on context, but for transportation it is defined here as the ability to move about and perform ordinary tasks such as traveling for work, social interactions, shopping or medical and health care visits.

Mobility: In the context of performance indicators refers to the time and costs required for travel. Mobility is higher when average travel times, variations in travel times, and travel costs are low. Indicators of mobility are indicators of travel times and costs and variability in travel times and costs.[18] There is also a differentiation of system vs. "people" mobility. A system indicator is more applicable to performance measures being emphasized in this current planning environment of performance and measurement.

The most frequently cited mobility measures fall into six major areas: congestion related (e.g., level of service, volume/capacity, and delay); trip time; amount of travel (vehicle miles traveled, vehicle hours traveled); mode share; transfer time; and transit performance.[19]

Disability is defined by the Americans with Disabilities Act (ADA) as any individual who has a physical or mental impairment which substantially limits one or more of such person's major life activities, has a record of such impairment, or is regarded as having such an impairment.

The 2010 Census data in the Demographics section of the plan presents the extent of the disabled and elderly populations within the MPA, taken from the best available information.

CAMPO recommends additional study into the possibilities of establishing mobility management in the MPO area.[20][21]

Several examples of mobility management activities include:

1. "one-stop" information centers that coordinate information on all transportation options,
2. travel training and trip planning for individuals,
3. transportation brokerages that coordinate providers, funding agencies, and persons needing trips, and,
4. planning and implementation of coordinated services, such as local and state coordination councils

Consultation with Other Officials and Organizations

Metropolitan Planning Organizations are encouraged "to consult with officials responsible for other types of planning activities that are affected by transportation in the area (including State and local planned growth, economic development, environmental protection, airport operations, and freight movements) or to

coordinate its planning process, to the maximum extent practicable, with such planning activities."[22]

CAMPO consults with representatives of each municipality and county within the metropolitan planning area, the State of Missouri Department of Transportation, the Federal Transit Administration, and the Federal Highway Administration on a regular basis.

In the development of plans by CAMPO, other agencies are also consulted, such as human service agencies, human service transportation providers, environmental, natural resource and conservation agencies, freight interests, and tribal interests.

MoDOT Programs

The MoDOT Fiscal Year 2013 budget provides $2.1 billion for the Missouri Department of Transportation (MoDOT). Yearly funding is projected to remain flat through the next five years.

At this time, MoDOT's construction program is declining since the elimination of funds from Amendment 3 bonds and American Recovery and Reinvestment Act of 2009 (ARRA) funding. Along with stagnant state revenues, uncertain federal funding, and rising internal costs, MoDOT emphasis is reportedly going to be placed on system preservation or Taking Care of the System and seeking additional revenue through increased fees or taxes.

MoDOT is responsible for overseeing all aspects of Missouri's transportation system, with their core functions being:

1. Constructing and maintaining the state road and bridge system.
2. Encouraging safety on Missouri highways for citizens and Department of Transportation employees.
3. Providing capital improvement and operating assistance grants for rural and urban transit systems, public airports, ferry boats, and passenger rail service.
4. Registering commercial motor vehicles.

Section 2: The Existing and Proposed Transportation System

This section identifies existing major roadways, transit, multimodal and intermodal facilities, pedestrian walkways, bicycle facilities, and intermodal connectors, and identifies proposed facilities to the system.

Roadways

Roadways making up the CAMPO road and bridge network are composed of:

1. US highways
2. State highways (may be more than one category of state highway)
3. County roads
4. Municipal roads/streets

Private roads are not included in the CAMPO network nor are Interstate highways, tribal lands roadways, or Federal lands roadways that may be included in some other MPO areas.

Roadways are usually defined by one of two methods, by design or function. MPOs generally use functional classification of roadways to describe or define a roadway, and these roadway functional classifications are reviewed periodically. These roadways are divided into urban and rural, and are further classified as:

1. Interstate
2. Freeway/Expressway
3. Other Principle Arterial
4. Minor Arterial
5. Collector (major or minor)
6. Intermodal Connector, and
7. Local road

Major Street and Highway Routes[23]

US Highways: The major routes into and through the region are US highways 54/50/63, intersecting at a point in northern Cole County and south of the Missouri River, near the center of Jefferson City.

1. United States Route 63, from United States Route 36 and the proposed Interstate Route 72 to the East-West Trans-America corridor, at the Arkansas State line.
2. United States Route 54, from the Kansas State line to United States Route 61/ Avenue of the Saints.

The 2010 Annual Average Daily Traffic (AADT) for US 54 was 26,582 near the Holts Summit area in Callaway County and 21,726 AADT south of Ellis Boulevard in Jefferson City, while US 63 west of Jefferson City and north of the river, in Callaway County had 18,564 AADT. The Missouri River Bridge Crossing, connecting Cole and Callaway Counties has a January, 2011 count of 52,757 vehicles per day (AADT).

For US 50, the east/west route through Jefferson City had a 2010 count of 36,423 AADT west of the tri-level, the interchange where these three primary routes meet, and 34,520 east of the tri-level.

Other Principal Arterials: Other Principal Arterial routes, in and around the City of Jefferson, including MO Rt. 179, Missouri Boulevard, Stadium Boulevard, and Ellis Boulevard. MO Rt. 179 carried 14,117 AADT in 2010 north of Rt. C, Missouri Boulevard carried 36,423 AADT between Southwest Boulevard and the tri-level, and Ellis Boulevard carried 14,489 AADT near the US 54 interchange and MO Rt. B.

New roadways are a lower priority than system preservation. Some additions are necessary however, several bypasses are recommended in outer years, a second bridge crossing is recommended, and resolution to the US 50/63 Whitton Expressway bottleneck is constantly identified as a priority as are Ellis Blvd. at US/54, along with Stadium Blvd. and Jefferson St. at US/54.

Minor Arterials:

In 2010, MO Rt. C is a significant Minor Arterial. Located in the southwest part of the City of Jefferson, it carried between 12,000 AADT between Stadium Blvd. and MO Rt. 179. Another significant Minor Arterial is Industrial Drive extending from US 54 to Truman Drive which continues on to connect to US 50 on the west side of the Jefferson City. Industrial Drive/Truman Drive carried 11,160 AADT east of MO Rt. 179 and 17,000 AADT between Scott Station Road and US 50 West. Remaining Minor Arterials carry substantially less traffic, from 5,000 to 9,000 AADT. See Table 6 for additional information.

The National Highway System under MAP 21[24]

In general - for the purposes of 23 USC, the Federal-aid system is the National Highway System, which includes the Interstate System.[25]

The National Highway System consists of roadways important to the nation's economy, defense, and mobility. All principal arterial routes that are not currently on the NHS before October 1, 2012, will automatically be added to the NHS provided the principal arterials connect to the NHS in a one-time addition.[1] There will be no restrictions on maximum NHS mileage.

The National Highway System (NHS) includes the following subsystems of roadways (note that a specific highway route may be on more than one subsystem):

1. **Interstate:** The Eisenhower Interstate System of highways retains its separate identity within the NHS.
2. **Other Principal Arterials:** Highways in rural and urban areas that provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.
3. **Strategic Highway Network (STRAHNET):** A highway network important to the United States' strategic defense policy, providing defense access, continuity and emergency capabilities for defense purposes.
4. **Major Strategic Highway Network Connectors:** Highways that provide access between major military installations and highways that are part of the Strategic Highway Network.
5. **Intermodal Connectors:** These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System.

For the Jefferson City MPA NHS Routes consist of US 50East and West in Cole County, and US 54 and 63 through the entire MPA.

Congressional High Priority Corridors on the NHS

There are two Congressional High Priority Corridors that pass through the CAMPO area:

1. United States Route 63, from United States Route 36 and the proposed Interstate Route 72 to the East-West Trans-America corridor, at the Arkansas State line.
2. United States Route 54, from the Kansas State line to United States Route 61/ Avenue of the Saints.

These corridors are congressionally designated. According to the FHWA website, the only criteria for being a congressionally designated High Priority Corridor is that it is what Congress designates. Although, there are some routes that have federal money attached to them, none are in the CAMPO area.

[1] [23 USC 103(b) (2)(1)(B) as amended by Section 1104

CAMPO and MoDOT reviewed and revised the Roadway Functional Classification system in early 2013.

Table 4: CAMPO 2013 MPA Roadway Mileage by Functional Classification and jurisdiction

	Urban Other Freeway Expressway	Urban Other Principal Arterial	Urban Minor Arterial	Urban Collector	Urban Local	Rural Other Principal Arterial	Rural Minor Arterial	Rural Major Collector	Rural Minor Collector	Rural Local	Total	Percent of Total (Jurisdiction)
Callaway County			2.3	2.9	11.2		0.9		2.9	13.9	34.2	5.32%
Cole County			3.6	5.9	70.1			4.6	3.3	82.4	169.8	26.46%
Holts Summit			3.1	4.1	14.5			0.5	0.6		22.7	3.53%
City of Jefferson*		4.3	37.4	23.6	190.6						255.9	39.87%
MoDOT	34.6	8.7	18.2	11.9	5.6	5.4	5.3	32.7	1.0	0.1	123.5	19.24%
Lake Mykee					2.0						2.0	0.32%
State of Missouri**					4.0					1.6	5.6	0.87%
St. Martins			1.5	0.5	7.4					0.7	10.0	1.55%
Taos										9.6	9.6	1.50%
Wardsville										8.6	8.6	1.33%
Total (Functional Class)	34.6	13.0	66.1	48.8	305.3	5.4	6.3	37.8	7.7	116.9	641.8	100.00%
Percent (Functional Class)	5.4%	2.0%	10.3%	7.6%	47.6%	0.8%	1.0%	5.9%	1.2%	18.2%		

*Includes Parks & Rec. and Interim

** MDC, MDNR, MDOC, etc.

Bridges

According to National Bridge Inventory at the Federal Highway Administration, there are 179 bridges in the CAMPO planning area as of 2011.

The Missouri River Bridge, the principal entry point into Jefferson City from the north is a compression arch suspended-deck bridge, constructed in such a way that a compression arch rises above the deck, with cables connecting the deck to the arch. There are two separate bridges, a northbound and southbound bridge. The southbound bridge opened in 1955, with a total length of 3,093 feet, a deck width of 37.7 feet, and a vertical clearance of 37.7 feet. The northbound bridge opened in 1991 with a total length of 3,124.2 feet, a vertical clearance of 16.1 feet, with a deck width of 46.9 feet, and has a bicycle lane suspended off of the Eastern side. The bicycle lane is reportedly 2,953 feet long, eight feet wide and includes two look out points with a view of the Missouri State Capitol.

This structure has been identified as part of the regional critical transportation infrastructure with 52,757 vehicles crossing these bridges on an average day in 2010. The nearest alternative Missouri River bridge crossings are at Hermann, Missouri on Missouri Route 19, approximately 40 miles to the east or between Boone and Cooper Counties on Interstate 70, approximately 32 miles to the northwest.

Nearby to the south is the "tri-level", a set of bridges and ramps at which the three U.S. highways, US 50, US 54, and US 63 intersect south of the Missouri River. This intersection point is also identified as regional critical infrastructure and is regularly identified as a periodic point of traffic congestion.

Structurally Deficient or Functionally Obsolete Bridges

Bridges are inspected and maintained on a regular basis, but two terms identify bridges that require attention "structurally deficient" and "functionally obsolete".

The term "structurally deficient" does not mean that a bridge is going to collapse, but that a significant load-carrying element is in poor condition because of deterioration or damage and needs to be addressed. The other term, "functionally obsolete" means that a bridge is structurally sound but to some degree unable to handle the volume of traffic that uses it.

City, County and State transportation agencies do a good job of monitoring the condition of bridges in the MPA, and CAMPO will include bridges in the infrastructure databases and database development and maintenance program and for the safety element in CAMPO planning program.

CAMPO identifies bridge safety and efficiency as extremely high priority in planning and programming for municipalities, Counties and State facilities.

CAMPO is seeking a higher level of funding and programming for replacement and maintenance of structurally deficient or functionally obsolete bridge structures.

The Structurally Deficient and Functionally Obsolete bridges are listed in the following table:

Table 5: Structurally Deficient and Functionally Obsolete Bridges

Facility Carried	Feature Intersected	Maintenance Responsibility	Year Built	Type of Work Needed	Total Project Cost	Status
COUNTY RD 382	CLIFTON CR	Callaway	1935	Replacement	$282,000	Structurally Deficient
DUNKLIN ST	WEARS CR	City of Jefferson	1900	Rehabilitation	$411,000	Structurally Deficient
OHIO ST	WEARS CR	City of Jefferson	1970	Replacement	$341,000	Structurally Deficient
FROG HOLLOW RD	WEARS CR	City of Jefferson	1915	Rehabilitation	$265,000	Functionally Obsolete
HIGH ST	WEARS CR, MISSOURI BLVD	City of Jefferson	1949	Rehabilitation	$3,391,000	Functionally Obsolete
MCCARTHY ST	WEARS CR	City of Jefferson	1985	Rehabilitation	$707,000	Functionally Obsolete
HELIAS RD	SANFORD CR	City of Taos	1930	Replacement	$153,000	Structurally Deficient
HEMSTREET RD	N MOREAU CR	Cole	1930	Replacement	$991,000	Structurally Deficient
TANNER BRIDGE RD	MOREAU RVR	Cole	1960	Rehabilitation	$1,137,000	Functionally Obsolete
PVT OVERPASS S	US 50	MoDOT	1964	Replacement	$949,000	Structurally Deficient
US 50 E	CST LAFAYETTE ST, WEARS	MoDOT	1959	Rehabilitation	$3,382,000	Structurally Deficient
BOLIVAR ST N	US 50, US 63, US 63	MoDOT	1964			Functionally Obsolete
DIX RD S	US 50	MoDOT	1964	Rehabilitation	$1,046,000	Functionally Obsolete
JACKSON ST N	US 50	MoDOT	1959	Rehabilitation	$552,000	Functionally Obsolete
MO 179 S	GRAYS CR	MoDOT	1959	Replacement	$1,192,000	Functionally Obsolete
MoDOT DR S	WEARS CR	MoDOT	1992	Rehabilitation	$908,000	Functionally Obsolete
OR 63 S	TURKEY CR	MoDOT	1940	Rehabilitation	$489,000	Functionally Obsolete
PVT BRIDGE T1012 S	CR	MoDOT	1982	Rehabilitation	$217,000	Functionally Obsolete
RP MADISON ST TO U	US 54	MoDOT	1966			Functionally Obsolete
RT C E	US 54	MoDOT	1965			Functionally Obsolete
US 50 W	MO 179	MoDOT	1983			Functionally Obsolete
US 54 E	NEIGHORN BR	MoDOT	1941	Rehabilitation	$477,000	Functionally Obsolete
US 54 E	BU 50	MoDOT	1966	Rehabilitation	$889,000	Functionally Obsolete
US 54 E	CST LINDEN DR	MoDOT	1966	Rehabilitation	$746,000	Functionally Obsolete
US 54 E	CST STADIUM BLVD	MoDOT	1966	Rehabilitation	$638,000	Functionally Obsolete
US 54 E	MISSOURI RVR, UP RR, CS	MoDOT	1991	Rehabilitation	$46,189,000	Functionally Obsolete
US 54 E	US 50, RP US54E TO US50W	MoDOT	1964			Functionally Obsolete
US 54 W	NEIGHORN BR	MoDOT	1965	Rehabilitation	$515,000	Functionally Obsolete
US 54 W	CST STADIUM BLVD	MoDOT	1966			Functionally Obsolete
US 54 W	BU 50	MoDOT	1966	Rehabilitation	$889,000	Functionally Obsolete
US 54 W	CST LINDEN DR	MoDOT	1966	Rehabilitation	$746,000	Functionally Obsolete
US 54 W	MISSOURI RVR	MoDOT	1955	Rehabilitation	$45,701,000	Functionally Obsolete
US 63 S	US 50, RP US54E TO US50W	MoDOT	1991			Functionally Obsolete
US 63 S	CST OILWELL RD, KATY TRA	MoDOT	1975			Functionally Obsolete
W HIGH ST E	US 54, US 63	MoDOT	1991			Functionally Obsolete
W MAIN ST E	US 54	MoDOT	1989			Functionally Obsolete

Source: National Bridge Inventory

Urban Transit Services

Fixed Route Service

JEFFTRAN is the public transportation provider for the City of Jefferson. Operated as a division in the Department of Public Works of the City of Jefferson, JEFFTRAN provides fixed route and paratransit

services within the city limits of Jefferson City.

JEFFTRAN operates six fixed routes and three commuter/school tripper routes during the school year.

Regular fixed route service operates Monday through Friday from 6:45 AM to 5:45 PM (except holidays) using a "pulse" system, where all routes except the Capital Mall route converge on the transfer point at 40 minute intervals.

All buses on regular scheduled routes have bicycle racks to accommodate two bicycles and is part of the JEFFTRAN Bike 'n' Ride program.

When travel requires changing to a different route to complete a journey, a transfer point becomes necessary. The transfer center is on 820 East Miller Street.

CAMPO staff continues to assist JEFFTRAN in consultation, programming, scheduling and maps as needed. CAMPO assists JEFFTRAN with their Program of Projects processes. No expansion is proposed, but increased efficiency in routes has been introduced by changing routes and schedules.

JEFFTRAN Paratransit Services

"Handi-Wheels" complementary paratransit services are provided by JEFFTRAN, providing curb to curb service for individuals with disabilities and those unable to use fixed route transportation systems (an "origin to destination" service). Although the Handi-Wheels service operates entirely within the city limits, it provides services beyond the requirements of the Americans with Disabilities Act of 1990 through a larger than required service area. Within this service area, eligible residents may receive services from 6:45 AM to 5:45 PM Monday through Friday.

Handi-Wheels service utilizes eight vehicles that report 1,930 ADA qualified passengers with daily transport of as many as 300 riders. All buses are wheelchair-lift equipped and provide transportation for those individuals who because of disability cannot travel to or from a "fixed route" bus stop or cannot get on, ride or get off a "fixed route" bus.

Funding is provided through a mix of sources such as passenger fares, local funding, FTA funding and contracts. Handi-Wheels can pick up clients anywhere inside the city limits and take them to any destination within the city limits.

Handi-Wheels riders must apply for and be approved in order to use this service. Applications and detailed service descriptions are available in standard print and accessible formats.

Rural Transit Service

OATS Inc. is a not-for-profit transportation service available to the general public in the rural areas of Callaway and Cole Counties with priority service to senior citizens and persons with disabilities. Anyone living in rural areas whose needs can be met by OATS' service schedules is eligible to ride their local OATS buses. OATS, Inc. ridership numbers remain strong after 40 years of service and the service continues to grow in popularity.

Serve Inc. serves the residents of Callaway County through CALTRAN a public transportation program based in Fulton.

Charter Service and Shuttles

Two private charter bus services serve the Jefferson City region, D&K Bus Service, and First Student Inc., both primarily student transporters, and one shuttle service operator, Tyus Executive Transportation Service.

Intercity Bus Service

Jefferson City did not have a regularly scheduled intercity bus service for over a decade. However, a limited intercity bus service is proposed by Greyhound for the spring of 2013. Connections will be at a local grocery at 701 Eastland Dr. Some inter-city bus service through paratransit services does occur and fills the need somewhat. The

Taxi/ limousine

Jefferson City region is served by Checker Cab of Jefferson City LLC., and two limousine services are listed as serving Jefferson City, Capitol City Limousine and Sedan Inc. and Chase Limousines.

Carpooling

Missouri Rideshare and Carpool Program

The Missouri Rideshare and Carpool Program is a free service provided by the Missouri Department of Natural Resources. The program organizes carpools by matching commuters who live and work in the same vicinity. The program serves the counties of Audrain, Boone, Callaway, Camden, Cole, Cooper, Crawford, Gasconade, Howard, Maries, Miller, Moniteau, Morgan, Osage, Pettis, Phelps, Pulaski, and Randolph. The Missouri Ride-Share Program information is below:

The Missouri Rideshare and Carpool Program information is found on the Missouri Department of Natural Resources website at: http://www.dnr.missouri.gov/energy/transportation/ridemap.htm.

MoDOT appears to cooperate with DNR on carpooling through "Share the Ride Statewide". Information on the "icarpool" carpooling database is available on the MoDOT website at http://www.MoDOT.org/services/carpools/CarpoolConnections.htm. The website states that the iCarpool database allows you to find fellow rural carpoolers in your area.

Carpool/Commuter lots are located at the following locations:

1. By the municipal airport
2. Across US 54 at the Jefferson City Park
3. US 50/63 East at Route M and J

The Aviation System

Jefferson City Memorial Airport

The City of Jefferson completed an Airport Master Plan Update in 2008.

Jefferson City Memorial Airport is a general aviation facility with no commercial airline passenger services. The facility is located north of the Capital in the Missouri River floodplain and is occasionally affected by flooding. The airport facility was constructed in 1948, covers 238 acres, and consists of a 4,800 square foot Airport Terminal Building, Air Traffic Control Tower, one 6,000 feet long runway, and one crosswind runway 3,400 feet long. Both runways are equipped with parallel taxiways.

The control tower operates 15 ½ hours per day, from 6:00 a.m. until 9:30 p.m., 365 days a year and 24-hour approach services are provided by Mizzou Approach, which is located at Springfield, Missouri. On -site services include car rental and restaurant, flying services and flight products and a full service fixed base operator (FBO), Jefferson City Flying Service.

The nearest regional airport with commercial service is the Columbia Missouri Regional Airport near Ashland, MO, 10 nautical miles SE of Columbia, MO between Jefferson City and Columbia on US 63. The

airport is publicly owned by the City of Columbia and has 4 runways.

CAMPO will support the local decisions of municipalities in improvements for general aviation airports and cooperative inter-city regional airport improvements, when economically feasible.

Table 6: Jefferson City Airport Statistics

Aircraft Based at Jefferson City Facility			Jefferson City Operational Statistics	
Aircraft based on field:	53		Aircraft Operations:	70/Day
Single Engine Airplanes:	26		Air Taxi:	2.30%
Multi Engine Airplanes:	12		General Aviation Local:	35.70%
Jet Engine Airplanes:	4		General Aviation Itinerant:	49.50%
Helicopters:	4		Military:	12.50%
Military:	7			

Time Period: 01-01- 2010 to 12-31- 2010

Other Aviation Facilities

The Missouri National Guard has a small aviation facility near the Jefferson City Memorial Airport and two heliports are located at the Missouri National Guard Ike Skelton Training Site.

Capital Region Medical Center Heliport (MU64) **Helipad H1** is a private medical heliport located at the Medical Center.

Table 7: Columbia Regional Airport Statistics

Columbia Based Aircraft		Columbia Operational Statistics	
Aircraft based on field:	41	Aircraft Operations:	71/Day
Single Engine Airplanes:	18	Commercial	8.90%
Multi Engine Airplanes:	10	Air Taxi	1.90%
Jet Engine Airplanes:	11	General Aviation Local	26.10%
Helicopters:	2	General Aviation Itinerant	53.30%

Time Period: 2010-01-01 - 2010-12-31

Table 8: Airport Traffic Counts for Jefferson City- (ATCT) (added Oct 1, 2012)

Year	Air Carrier Operations	Air Taxi & Commuter Airline Operations	General Aviation Operations	Military	Total
1995**	0	1,368	29,783	10,595	41,746
1996	0	1,378	33,475	11,541	46,394
1997	2	1,291	36,279	12,405	49,977
1998	0	769	32,815	11,661	45,245
1999	18	489	35,442	11,977	47,926
2000	0	1,538	28,472	8,586	38,596
2001	0	2,339	28,512	5,939	36,790
2002	0	1,792	32,687	7,199	41,678
2003	0	889	31,355	7,304	39,548
2004	0	610	25,564	4,010	30,184
2005	0	523	24,325	7,298	32,146
2006	0	595	24,249	5,547	30,391
Total	20	13,581	362,958	104,062	438,875

** Indicates a year in which a flood occurred, resulting in temporary airport closure.

Freight

Freight movement in the Jefferson City MPO region consists primarily of truck transport or river transport of bulk commodities.

For freight in general, previous stakeholder input identified several high priority deficiencies in the regional freight environment, such as truck routing, signage, street and intersection design, lack of supporting freight accommodations such as terminals, depots, stopping areas, and refuel options, are items that need to be improved, according to freight representatives during public participation and planning sessions.

CAMPO advocates improved design of access to commercial and industrial areas, intersection improvements, and improved directional and traffic signage throughout the MPO area.

River Transportation

In FY 2011 and 2012, Missouri provided $360,000 in State Aid to Port Authorities statewide.

Two rivers in the MPA are considered to be navigable rivers, the Missouri River, and the Osage River from river mile 0.0 to mile 81.7 (the confluence with the Missouri River upstream to the Bagnell Dam in Miller County, Missouri). The Missouri River provides commercial waterway traffic during an average of 8 months per year, during navigable water levels. In 2006, Missouri River barge traffic carried 200,000 tons of cargo.[26]

Jefferson City river freight is carried out by a private corporation, the Jefferson City River Terminal, located at 719 Mokane Road consisting primarily of concrete products. Representatives of the Jefferson City River Terminal estimate that a six barge tow is equivalent to approximately 300 truckloads.[27]

According to the 2011 Missouri River Freight Corridor Assessment and Development Plan, along the Missouri River Corridor, "few of the existing facilities have marine infrastructure suitable to accommodate large capacity lift machines or to support the weight and footprint associated with cranes, truck turn around space, cargo staging area, or large material handling rolling stock. However, "appropriate structures in good condition are presently available in the Jefferson City and St. Joseph areas."[28]

A November 2010 inventory of public and private port facilities and infrastructure It was noted in the plan that Union Pacific has a rail line, but it is on the South side of the river, while the airport and river terminals are on the North side, so the terminals are accessible only from the river side or by truck. Therefore, full intermodal opportunities are not being realized into each transportation mode.

For recreational access, the Missouri Department of Conservation provides recreational access to the river at the Capital View Access 5 miles north of Jefferson City on the west side of US 63, near Cedar Creek. The Missouri Department of Conservation and Jefferson City Parks and Recreation Department cooperate to provide recreational access at the Carl R. Noren Access point, located just west of the US 54/63 Missouri River Bridge.

The Missouri River does not have good access from the downtown area or most of the city, with rail lines and steep terrain on the south side and flood plain to the north. It is generally considered to be an underutilized resource for recreation and to a lesser degree transportation.

Rail Roads: Passenger

Jefferson City is served by AMTRAK, with a station at 101 Jefferson St., Jefferson City, MO. The station is not staffed, other than volunteers during arrival and departure times. It does have payphones, free short term and long term parking, and vending services, but no ticketing services are available. Station hours are 9:00am – 12:00pm and 3:30pm – 8:00pm, daily.

The current station facility and parking is owned by the State of Missouri while the tracks are owned by the Union Pacific.

Services are extremely limited, with no ticket office hours, no Quik-Trak hours, no checked baggage hours, no help with baggage, restrooms only during station hours, and unattended long and short term parking for passengers across street in the State parking lot.

Revenue for the Jefferson City AMTRAK station in FY 2011 was $1,081,412(from October through September) and Station Ridership for FY 2011 was 48,993 and increasing to 50,282 in 2012. This station has the fourth highest usage on this route after Kansas City, St. Louis, and Kirkwood.

There are two trains to St. Louis and two trains to Kansas City daily. Reservations are required and bicycles are permitted. AMTRAK's St. Louis to Kansas City corridor includes stops in St. Louis, Kirkwood, Washington, Hermann, Jefferson City, Sedalia, Warrensburg, Lee's Summit, Independence and Kansas City.

MoDOT says ridership on the Amtrak route increased from about 164,000 in the 2010 fiscal year to about 191,000 passengers in 2011.[29]

Missouri's proposed budget for the fiscal year starting July 1, 2010 includes $8.6 million for Amtrak service throughout the state. However, officials from the Missouri Department of Transportation predict the state will owe Amtrak about $2.9 million by the end of the 2011 fiscal year due to shortfalls in subsidies of the route.

Missouri has budgeted $7,900,000 in FY 2010 for State Passenger Rail Assistance and Station Improvements, and $8,125,000 in FY 2011 and again in FY 2012.

CAMPO advocates improved station, services, and facilities at the Jefferson City AMTRAK station, with potential intermodal connections for transit and public transport, waiting and pickup accommodations and higher levels of amenities.

Rail Roads: Freight

Rail traffic carrying freight is generally through traffic on the Union Pacific Railroad. The main track is a double track line with a new second bridge crossing the Moreau River, done in 2013, and a spur line running from the Missouri Boulevard and Water Street area to just west of MO Rt. 179/Truman Boulevard. A second branch also runs from Cole Junction Road and MO Rt. 179, while a third spur runs eastward to Militia Drive.

According to the Missouri Freight and Passenger Rail Capacity Analysis of 2007 the corridor running through Jefferson City is handling between 50-60 trains per day which is at the upper limits of capacity for a double track line handling the types of freight that it does. From a train weight perspective this corridor handles a large percentage (roughly 50%) of heavy coal trains.

Recent rail improvements include a new siding near California and a second bridge over the Osage River.

Inter-modal Systems

Inter-modal refers to the connections between modes and usually refers to facilities that provide transfer of passengers or freight between transportation modes such as seaports, airports, truck/rail terminals, pipeline/truck terminals and other inter-modal freight transportation facilities.

Jefferson City has three inter-modal facilities: (1) the AMTRAK station with rail and roadway connections, (2) the Jefferson City Memorial Airport, with limited general aviation passenger services, small freight transfers, and car rental services, and (3) a private river terminal using truck and river transport for bulk commodities.

CAMPO advocates for a regional intermodal facility, possibly but not necessarily along the current rail

lines, to incorporate truck, rail, and river freight storage and transfer facilities, outside the developed urban areas. CAMPO should advocate for a regional comprehensive intermodal freight and passenger plan.

Bicycle and Pedestrian Systems – Sidewalks, Greenways, Routes and Trails

Non-motorized transportation in the form of bicycle and pedestrian travel are a common, but limited-range transportation option.

The State of Missouri Department of Transportation has a bicycle/pedestrian program that works with local governments and regional planning agencies to improve access for bicycle and pedestrian transportation modes, while at the same time improving safety.

CAMPO, MoDOT and local municipalities participate in expanding opportunities for bicycle and pedestrian facilities through Transportation Enhancement and Safe Routes to Schools programs along with state and local funding, and development of bicycle and pedestrian plans.

Member jurisdictions have taken advantage of federal and state funding for sidewalks, trails and greenways through the federal Safe Routes to School Program, Transportation Enhancement Program, Recreational Trails Program, and State coordinating programs. CAMPO will continue to advocate and assist jurisdictions in plan development, funding and programming.

Sidewalks

The City of Jefferson did a sidewalk inventory in 2008, adopted *A Sidewalk Plan for Jefferson City, Missouri* in February of 2010 by passing an ordinance adopting the plan(ord. 32-105-112), and developed a rating matrix in 2012.

This matrix is a methodology for prioritizing areas for sidewalks under the City's Capital Improvement Program and outlines various sidewalk segments, and includes mostly arterial and collector class streets, although on the last page, there are other, "local" streets that serve as important connectors between neighborhoods or existing sidewalks or sidewalks and greenways.

The City of Jefferson approved plans for over 9,600 linear feet of sidewalks in Jefferson City. Over 2,200 linear feet of sidewalk will be constructed in conjunction with new buildings or building additions. Also, two subdivisions were approved in 2010 that will eventually add 7,460 linear feet of sidewalk to the City's infrastructure.[30]

In June of 2012 the EQC recommended that grocery stores, parks and playgrounds and the Health Department be added to the matrix spreadsheet.[31]

Holts Summit identifies sidewalks as a priority in their Draft Long Range Transportation Plan.

CAMPO will support a comprehensive program to identify, maintain and improve sidewalks throughout the MPO area.

Greenways and Trails

Holts Summit Trails and Greenways:

> The concrete walking trail that winds through Hibernia Station Park is approximately 0.75 of a mile long and a proposed 3200 ft. of natural surface trail, including a natural surface trail that currently goes around the pond at Greenway Park with an approximate length of 1400 ft.

Callaway County Bicycle/Pedestrian facilities:

> Katy Trail State Park is a bicycle and pedestrian trail that extends for 240 miles from Machens to

Clinton and is operated by the Department of Natural Resources as part of the state park system. A section goes through Callaway County just north of US 63, with access from the airport exit of us 63/54.

Katy Trail Spur - An additional access point to the Katy Trail is off of US 54 at the S. Summit Drive exit.

Cole County Bicycle/Pedestrian facilities:

County Jaycee Park is an 80 acre park southwest of Jefferson City and has a Lake Loop walking trail around the County Park Lake with a length of 0.66 of a mile or 3490 ft. Access is from County Park Rd.

City of Jefferson facilities:

There are approximately 31.9 miles of greenway trails, fitness trails and mountain bike trails throughout Jefferson City consisting of greenways, fitness trails and mountain bike trails.

CAMPO will advocate and assist member jurisdictions in planning, funding and programming expansion and connectivity of greenways and trail systems within in the MPA through local development efforts.

Table 9: Bicycle/Pedestrian Routes in Jefferson City – Greenways and Trails

Greenway Trails (Main Corridor)	Length
Dunklin Street Trail Head to Southwest Blvd.	1.10 miles
Southwest Blvd. to Stadium Blvd.	1.30 miles
Stadium Blvd. to Edgewood Dr. Parking Lot	0.90 miles
Edgewood Dr. Parking Lot to Fairgrounds Rd.	2.10 miles
Fairgrounds Rd. through County Park Lake to Covington Gardens	1.3 miles
Park/Fitness Trails	Length
East Miller Street Neighborhood Park	0.25 miles
Ellis-Porter/Riverside Park	1.30 miles
McKay Park	0.60 miles
Memorial Park	1.30 miles
Greenway Trail (Spurs)	Length
Duensing Ball field to Swifts Highway	0.70 miles
Stadium Blvd. to Satinwood Dr.	0.50 miles
Edgewood Dr. to Shermans Hollow	0.50 miles
Ellis Porter/Riverside Park to Lewis & Clark State Office Building	0.70 miles
Lewis & Clark Trailhead Plaza to Clay Street	0.60 miles
Clay Street to North Jefferson Pavilion	1.70 miles
North Jefferson Pavilion to the Katy Trail	1.00 miles
Katy Trail to Summit Drive	0.20 miles
Greenway Trail (East Branch of Wears Creek)	Length
East McCarty St. to Chestnut St.	1.20 miles
Stadium Lafayette Round-About through Aurora Park	1.10 miles
Mountain Bike Trails	Length
Binder Park	13.05 miles
Edgewood Drive (adjacent to Greenway)	2.30 miles

Source: City of Jefferson Parks and Recreation 12/26/12

Figure 2: City of Jefferson Sidewalk Master Plan 12/26/12

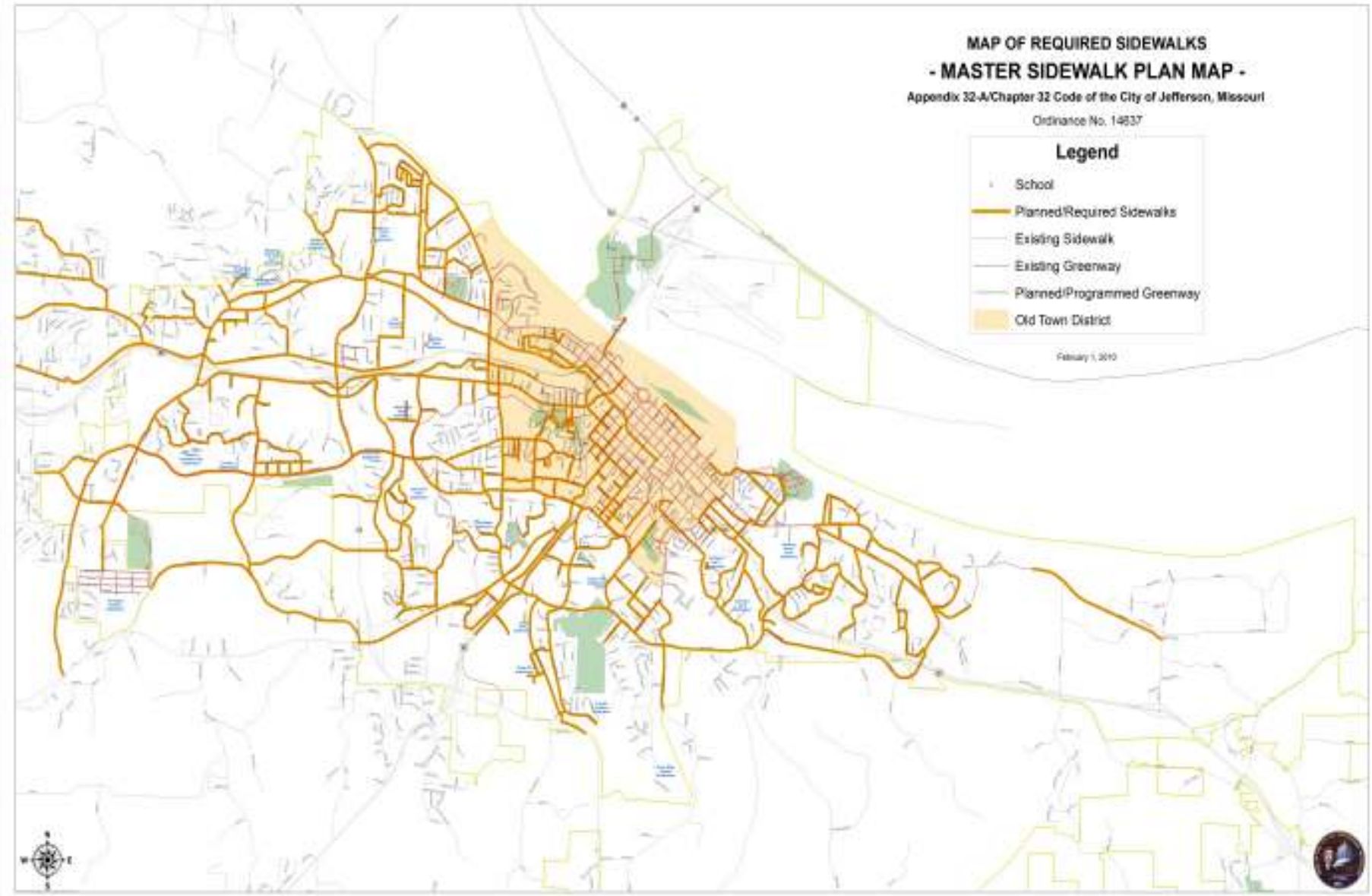


Figure 3: City of Jefferson 2009 Greenways Trail Map 12/26/12

Transportation System Safety - Safety Element

Safety is defined as protection of persons or property from unintentional damage or destruction caused by accidental or natural events.[32]

MAP 21 introduced new safety measures, funding, regulatory authority, and programs for the Federal Transit Administration (FTA)[33]. Transportation providers will be expected to participate in new safety performance criteria, vehicle safety performance standards, Safety Certification Training Program, Transit Agency Safety Plans, a bus testing program and a State Safety Oversight Program. FTA is given increasing authority for enforcement, reporting and oversight. This will also likely increase costs and regulatory overhead.

As recommended in federal legislation[34], the Metropolitan Transportation Plan is incorporating the 2013 Highway Safety Plan & Performance Plan into the MTP **by reference**, summarizing the plan's priorities, goals and countermeasures, or projects for the metropolitan planning area.

CAMPO Roadway Accident Statistics

CAMPO compiled accident data on roadway accidents, car/train accidents, and bicycle and pedestrian accidents.

The intersections with the highest accident numbers from 2007 to 2011 are listed in the following two tables:

Table 10: Highest Accident Locations at Non-Interchange Intersections - 2007- 2011

Rank	Location	Number of Accidents
1	Missouri Blvd. & US 50/63	194
2	Missouri Blvd. & Dix Rd.	94
3	Country Club & Truman Blvd.	85
4	Missouri Blvd. & Stadium Blvd.	84
5	US 50/63 & Madison St.	81
6	Missouri Blvd. & Southwest Dr.	78
7	Southwest & Rte. C. & Southridge Dr.	71
8	US 50 & Monroe St.	69
9 Tie	Rt. C & Jefferson St.	60
9 Tie	US 50/63 & Jefferson St.	60
11	Mo. 179 & Edgewood	56
12	Dix Rd. & Industrial Rd.	50
13	Mo. 179 & Truman Blvd.	47
14	US 50/63 & Broadway	46
15	Dix Rd. & William St.	44
16	Missouri Blvd. & Dunklin St. & Bolivar St.	43

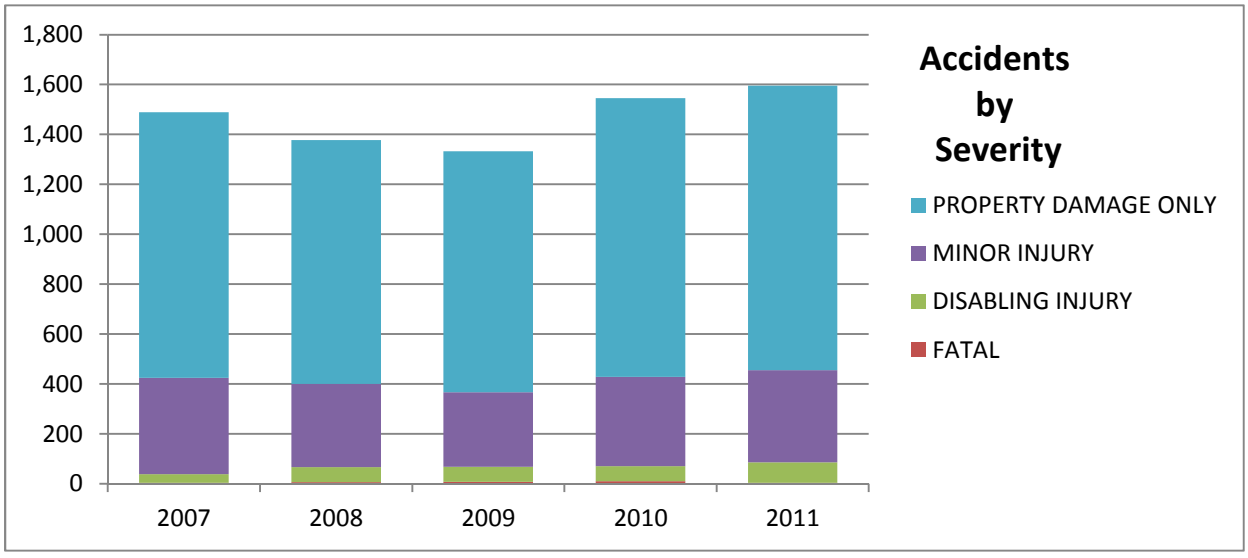
Table 11: Severity of Auto Accidents from 2007 to 2011

Accident Severity	**2007**	**2008**	**2009**	**2010**	**2011**	**5-Year Total**
Fatal	4	6	7	10	3	30
Disabling injury	34	60	61	60	83	298
Minor injury	386	334	298	358	369	1,745
Property damage only	1,065	977	966	1,117	1,141	5,266
All Accidents	1,489	1,377	1,332	1,545	1,596	7,339

Table 12: Highest Accident Locations at Interchanges – 2007-2011

Rank	Location	Number of Accidents
1	US 54/63 & US 50	172
2	US 50 & rte. 179	156
3	US 50 & S. Country Club Dr./Truman Blvd.	112
4	US 54 & Rt. C/Ellis Blvd.	103
5	US 54 & Rt. 179	86
6	US 50 & Dix Rd.	84
7	US 54 & US 63	69
8	US 54/63 & Airport Rd.	61
9	US 50 & Eastland Dr.	54
10	US 50 & Clark Ave.	53
11	US 54 & Madison St.	51
12	US 54/63 & Main St.	47
13	AA/OO & US 54	34
14	US 50 & Big Horn	26
15	Center St. & US 54	22
16	US 54/63 & McCarty St.	22
17	US 50 & rte. T	19
18	US 54 & Jefferson/Christy	15
19	S. Summit Dr. & US 54	13
20	US 50 & Rt. M/J	11
21	US 50 & Militia	8
22	US 50 & BU 50/Apache Flats	2

Figure 4: Chart on Auto Accidents by Severity



Bicycle and/or Pedestrian Accidents

In the five year period from 2007-2011 there were 60 pedestrian and 23 bicyclist accidents. This is up from the 2003 -2006 time period.

Table 13: Bicycle/Pedestrian Accidents from 2007 to 2011

Accident severity	Pedestrian	Bicycle
Disabling injury	18	12
Fatal	3	0
Minor injury	37	9
Property damage only	2	2

Source: MoDOT 2007-2011 Accident Data

Car/Train Accidents:

Car/Train accidents happen infrequently but they do happen. In 2007, three car/ train accidents occurred and on January 20, 2008 at Cole Junction, one fatality occurred as a result of a train hitting an automobile.

According to the 2012- 2016 STIP, the Passenger Rail and Highway/Rail Crossing Safety Program has no project programmed in Cole County or Callaway Counties.

Table 14: Car/Train Accidents2007 to 2011

Roadway	Accident Severity	MoDOT Accident Category	Year	Fatalities
Industrial Dr.	Property Damage Only	Railroad/Train	2007	0
Rte. 179	Property Damage Only	Railroad/Train	2007	0
Cole Junction Rd.	Fatality	Railroad/Train	2008	1
Industrial Dr.	Property Damage Only	Railroad/Train	2007	0

Strategic Highway Safety Plan and Emergency Relief / Disaster Preparedness[35]

The Highway Safety Act of 1966, 23 USC, Section 4(a) requires that "Each State shall have a highway safety program approved by the Secretary, designed to reduce traffic accidents and deaths, injuries, and property damage resulting therefrom." This results in what is called Section 402 Highway Safety Plans.

In accordance with 23 U.S.C 148, Missouri developed and certified a 203 page 2013 Highway Safety Plan & Performance Plan in August of 2013. The strategies outlined within the HSP and performance plan will be implemented by MoDOT in an attempt to reach the overarching statewide Blueprint goal of 700 or fewer fatalities by 2016.

CAMPO supports the Missouri Highway Safety Plan & Performance Plan, and the intent of the plan to reduce injuries, fatalities and property damage. Specifically, the MoDOT goal #1 is to reduce fatalities And the MoDOT Goal #2 is to reduce serious injuries.

CAMPO does not legislate, enforce, nor design safety projects and programs. It is a multi-jurisdictional planning organization, promoting safety through the identification and analysis of hazardous locations through accident data. CAMPO plans for multi-modal projects through CAMPO membership, State agencies and Federal agencies. Project selection includes safety as one of multiple selection criteria for the sponsoring agency.

Best Practices Countermeasures[36]

According to MoDOT literature, the highway safety division at MoDOT attempts to ensure that effective countermeasure efforts are incorporated into the strategies of the Plan by employing the following methods:

- Utilizing proven countermeasures identified within the latest update of *Countermeasures That Work:*

A Highway Safety Countermeasure Guide for State Highway Safety Offices, USDOT, NHTSA;

- Evaluating traffic crash data to determine crash types, target populations and geographic locations in order to most effectively implement countermeasure efforts;
- Participating in national law enforcement mobilizations that combine blanketed enforcement and saturated media during established timeframes and in targeted traffic corridors; and
- Participating in state, regional, and national training opportunities in order to gain insight into proven programs that can be replicated in Missouri.

State Emergency relief and disaster preparedness plans and strategies

The State Emergency Management Agency's mission (SEMA) is to protect the lives and property of all Missourians when major disasters threaten public safety in any city, county or region of Missouri. SEMA responds to two types of disasters - natural and those caused by man. Natural disasters are major snow and/or ice storms, floods, tornadoes and/or severe weather, as well as a potential major earthquake along Missouri's New Madrid Fault. Man-made disasters, also known as technological emergencies, may include hazardous material incidents, nuclear power plant accidents and other radiological hazards.[37] SEMA is also responsible for developing a State Emergency Operations Plan which coordinates the actions of Missouri state government departments and agencies in the event of any emergency requiring the use of state resources and personnel. SEMA also serves as the statewide coordinator for activities associated with the National Flood Insurance Program.

Emergency Preparedness Grants

The Emergency Management Performance Grant (EMPG) Program provides resources to the State Emergency Management Agency and local government emergency management agencies, for the sustainment and enhancement of all-hazard emergency management capabilities. An all hazards approach to emergency response, including the development of a comprehensive program of planning, training, and exercises, means there can be an effective and consistent response to disasters and emergencies, regardless of the cause. It involves building long-term strategic relationships within the emergency management community to ensure that the program meets the needs of Missourians during disasters.[38]

Natural Hazards/ Emergency Planning

The Jefferson City Metropolitan Planning Area, including south Callaway and northern Cole Counties are subject to natural hazards such as flood, tornados, winter storms, hail, high winds, fire, drought, heat, and earthquakes.

The CAMPO MPA is not in a high risk tornado area, but they do occur.

Winter storms, especially ice storms pose a threat to central Missouri by creating disruptions in transportation, electricity, telephone, and other critical infrastructures.

Occasional severe floods are problematic within the MPA especially major flooding on the Missouri River and flash flooding of its tributaries. Severe floods in 1993 and 1995 caused significant damage and resulted in the buyout of residents of Cedar City which had recorded 9 floods between 1942 and 1993. Periodic floods disrupt transportation, damage transportation infrastructure and pose a threat to people's safety. Compounding the problem is the fact that alternate routes are lacking during severe flooding for the Jefferson City area with the nearest alternate Missouri River crossings an hour away.

The cities of Holts Summit and Lake Mykee, reportedly do not participate in the National Flood Insurance Program (NFIP). And, in the Holts Summit case, this is reportedly because no flood hazard areas have been identified nor mapped at this point.[39]

The MPA is also located in a serious earthquake impact region, the New Madrid Seismic Zone. It carries a potential intensity VII (7) earthquake effect for a magnitude 7.6 earthquake.[40] This means that considerable damage could result in poorly constructed buildings, slight to moderate damage in well-built buildings, broken windows, and potential minor damage in transportation structures such as older bridges and cracked pavement.[41] Transportation planning for natural disasters is an activity that includes participants at the most immediately responsive level of government, the local level, supplemented by State government and eventually, Federal government.

Natural Hazard Mitigation

Natural hazard mitigation in central Missouri refers to reducing risk associated with floods, tornadoes, severe winter storms, earthquakes, drought, wildfires, dam failure and heat wave. The term mitigation in this usage refers to planning and modeling for potential hazards.[42]

Mitigation activities for areas of the CAMPO MPA are contained in the Jefferson City-Cole County and Callaway County Natural Hazard Mitigation Plans.

CAMPO advocates improved coordination and planning of emergency and natural hazard mitigation activities between agencies, related to transportation, and supports the goals of the Jefferson City-Cole County and Callaway County Natural Hazard Mitigation Plans and also advocates and supports continued coordination and planning activities related to the Callaway and Cole County / Jefferson City Emergency Operations Plans for transportation safety and emergency response.

Transportation System Security

Security is defined as protection of persons or property from intentional damage or destruction caused by vandalism, criminal activity, or terrorist events. CAMPO can participate in improving security by identifying possible emergency routes, identifying alternate routes, encouraging accessibility by emergency vehicles in neighborhood and street design and through supporting interagency cooperation. Hazardous materials and truck routing information and data may be an activity CAMPO will explore. CAMPO can also assist state and local planning efforts through collection and analysis of accident and infrastructure condition data, and improvements in project selection and investment.

Recommendations of FHWA for the role of security in MPO planning is that consideration of security in the planning process should be documented in key planning documents such as the UPWP, the State Planning and Research Program, the long-range transportation plan, STIP or TIP or may be part of a standalone study. Federally funded or regionally significant transportation security should be included in the metropolitan long-range plan, STIP, or TIP. Other activities may include documenting conversations and coordination with groups focused on security or including transportation security as a project selection criterion.[43]

Environmental Consultation and Mitigation

State DOTs and MPOs consult with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. CAMPO staff contacted 219 individuals, including 118 agencies, departments and organizations for four stakeholder meetings.

CAMPO staff is planning consultation contact and establishing a relationship with environmental agencies by soliciting input and comments on the draft MTP and the draft mitigation discussion. Included in this solicitation is also a request for suggestions on potential environmental mitigation strategies that should be employed in our region, which have been incorporated into this discussion as appropriate.

At this point, this initial discussion tends to provide an overview of mitigation activities currently undertaken throughout the region at the project level.

Mitigation: In its simplest form, policy for environmental mitigation consists of avoidance of negative environmental impacts (by far the best solution), minimization of negative impacts, and if negative impacts are unavoidable, compensation (as for lost habitat).

Environmental resources and areas are generally impacted by transportation projects as a result of construction, increased traffic, storm water runoff from paved surfaces, among others. Examples of these resources where mitigation efforts can be focused include:

- Neighborhoods and communities, homes and businesses
- Cultural resources (i.e. historic properties or archaeological sites);
- Parks and recreation areas;
- Wetlands and water resources;
- Forested and other natural areas;
- Agricultural areas;
- Endangered and threatened species; and
- Air Quality.

Environmental mitigation is the process of addressing damage to the environment caused by transportation or other public works projects. Actions taken to avoid or minimize environmental damage are considered the most preferable method of mitigation. Otherwise, some potential environmental mitigation activities may include:

- avoiding impacts altogether;
- minimizing a proposed activity/project size or its involvement;
- rectifying impacts (restoring temporary impacts);
- precautionary and/or abatement measures to reduce construction impacts;
- employing special features or operational management measures to reduce impacts; and
- Compensating for environmental impacts by providing suitable, replacement or substitute environmental resources of equivalent or greater value, on or off-site.

Table 15**:** Mitigation Strategies Identified in Five Major types of Projects

Resource	Potential Mitigation Strategy
Neighborhoods and communities, homes and businesses	• Minimize noise impact with sound barriers • Prevent the spread of hazardous materials with soil testing and treatment
Wetlands and Water Resources	• Replace or restore wetlands • Submerge or utilize bottomless culverts • Bridge sensitive areas instead of laying pavement directly onto the ground • Improve storm water management
Forested and other natural areas	• Use selective cutting and clearing • Replace or restore forested areas • Preserve existing vegetation
Endangered and threatened species	• Use selective cutting and clearing • Bridge sensitive areas instead of laying pavement directly onto the ground • Replace or restore forested areas
Air Quality	• Control loose exposed soils with watering or canvas sheets • Minimize idling of heavy construction vehicles

Air Quality

The CAMPO area is fortunate to have good air quality, and Jefferson City currently meets State and Federal air quality standards, but not all urbanized areas do. Many major metropolitan areas with air pollution levels in excess of legal limits for volatile organic compounds, ozone, or particulate matter, from mobile emissions (such as automobile), stationary emissions (such as industrial and power plant), and wider area emissions (from the general area) continuously have to deal with a complex set of air quality issues affecting health, their economy and extensive regulatory costs.

Section 3 Future Development Affecting Transportation

2000 through 2010:

The Census counted 53,714 people within the Jefferson City Urban Area in 2000 and 58,553 people in 2010, for a change in population of 8.97% over 10 years.

Table 16: Capital Area MPO Urban Area Population and Land Area Changes - 2000 through 2010

Urban Area 2000 Population	53,714
Urban Area 2010 Population	58,533
Urban Area Population Change 2000-2010	4,819
Urban Area Population Percentage Change	8.97%
Urban Area Land Area 2010	39.99 sq. mile
Urban Area Land Area 2000	38.16 sq. mile
Urban Area Land Area Change	1.83 sq. mile
Urban Area Land Area Percentage Change	4.79%

Source: U.S. Bureau of the Census

Municipalities had significant variability in their growth rates over the years from 2000 through 2010.

Table 17: Municipality Population Change– 2000 through 2010

City/County	2010 Census	2000 Census	2000-2010 Change	
	Counts	Counts	Change	Percentages
Jefferson City	43,079	39,636	3,443	8.69%
Holts Summit	3,247	2,935	312	10.63%
St. Martins	1,140	1,023	117	11.44%
Lake Mykee	350	326	24	7.36%
Taos	878	870	8	0.92%
Wardsville	1,506	976	530	54.30%

Source: U.S. Bureau of the Census

The following table shows the historic (2000-2010) growth rates within the MPA of the portions of Cole and Callaway Counties within the CAMPO MPA.

Table 18: Callaway and Cole County Population Growth

	2010 Census Counts	2000 Census Counts	2000-2010 Change	2000-2010 Percent Change
Cole County	75,990	71,397	4,593	6.43%
Callaway County	44,332	40,766	3,566	8.75%

Source: U.S. Bureau of the Census

Several trends emerged from the land use study and travel demand modeling over the 2000 to 2010 decade.

In land use, dwelling numbers are decreasing in the downtown area as redevelopment occurs, but development is occurring at high rates south of Jefferson City and northward into Callaway County around Holts Summit. New commercial development is occurring to the east along US 50/63 and E. McCarty St., with major street improvements and big box retailers. To the west, a new school will prompt

new development but infrastructure such as sewers may inhibit smaller lot residential development west of St. Martins.

Depending on funding, a new proposed "mega" school and new hospital at Rte. 179 between Rte. C and W. Edgewood will almost certainly spur commercial development along the Rte. 179 corridor. The sluggish Truman Blvd. / US 50 East area should expand when redevelopment or mall related reuse finally occurs.

Demographics: in general, family size is getting smaller. The population, (and the drivers), are getting older, as evidenced by the decreasing number of drivers. Family size is also getting smaller.

Projected growth from year 2000 through 2035

Projecting growth based on historic trends,

Table 19: Callaway and Cole County Population Projections from 2000 to 2030 to 2035

Year	2000	2010	2020	2020	2030	2030	2035	2035
County	(actual)	(actual)	(linear)	(State Projection)	(linear)	(State Projection)	(linear)	(State Projection)**
Callaway	40,766	44,332	48,210	50,140	52,427	55,096	54,761	57,545
Cole	71,397	75,990	80,878	79,333	86,081	83,583	88,886	85,645

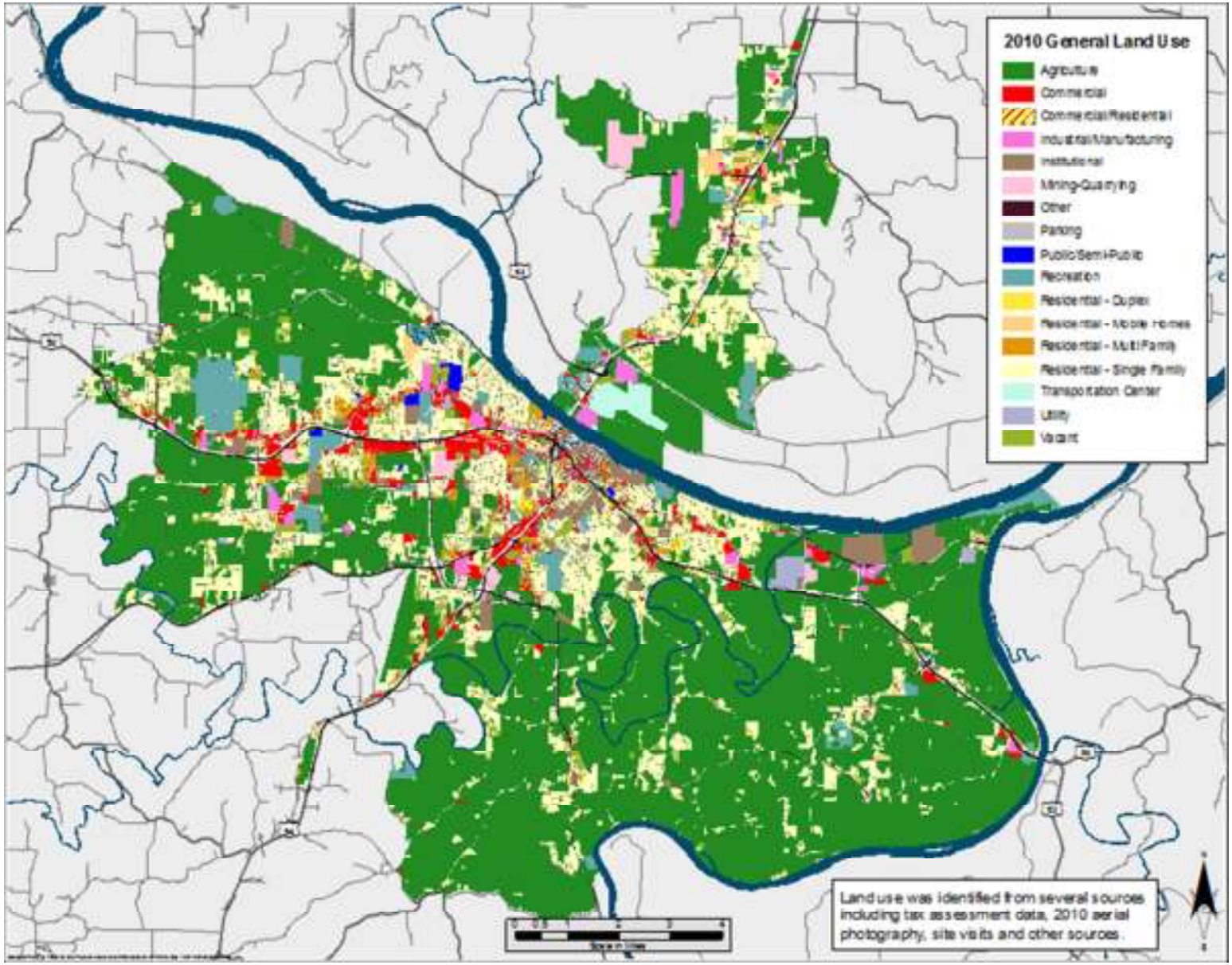
Source: CAMPO * * w/linear projection last 5 years - date 12/25/12

Current Land Use

Table 20: Proportions of land use by category for 2010

General Land Use	Area in Acres	Area in Square miles	Percent Land Use - not counting ROW and Mo River.	Percent Land Use - including ROW and Mo River.
Agriculture	57,798.2	90.3	65.80%	59.14%
Recreation	2,950.0	4.6	3.36%	3.02%
Residential - Duplex	296.3	0.5	0.34%	0.30%
Residential - Mobile Homes	606.0	0.9	0.69%	0.62%
Residential - Multi Family	719.5	1.1	0.82%	0.74%
Residential - Single Family	14,604.9	22.8	16.63%	14.94%
Transportation Center	520.6	0.8	0.59%	0.53%
Utility	479.0	0.7	0.55%	0.49%
Vacant	3,254.3	5.1	3.70%	3.33%
Commercial	2,370.1	3.7	2.70%	2.43%
Commercial/Residential	47.7	0.1	0.05%	0.05%
Industrial/Manufacturing	1,012.3	1.6	1.15%	1.04%
Institutional	2,280.1	3.6	2.60%	2.33%
Mining-Quarrying	566.8	0.9	0.65%	0.58%
Parking	136.2	0.2	0.16%	0.14%
Public/Semi-Public	187.9	0.3	0.21%	0.19%
Total	87,829.9	137.2	99.99%	89.87%

Figure 5: Land Use Map



Projected Land Use, Development, and Redevelopment

MPO staff determined current land uses for CAMPO planning area, and where zoning exists, projected future development to meet the estimated population growth. In areas where zoning does not exist to provide guidance on future development, surrounding infrastructure (such as sewers, roadways, and nearby development) was used to forecast future development.

Redevelopment

Extensive redevelopment of the area in and surrounding the former Missouri State Penitentiary site east of the Central Business District will have the most impact on traffic and transportation in Jefferson City in the next 15 to 20 years.

A new United States Courthouse is a major new development in this neighborhood. It is located at 80 Lafayette Street is a 118,000-square-foot facility overlooking the Missouri River and completed in 2012. It houses the Central Division of the U.S. District and Bankruptcy Courts for the Western District of Missouri, provides space for two district courtrooms, two magistrate courtrooms, space for a bankruptcy chamber, the U.S. Marshals Service, U.S. Attorney, Probation, and Pretrial Services, space for GSA and local congressional offices.

The now abandoned Missouri State Penitentiary (MSP) has been replaced under a redevelopment program which includes demolition of most of the prison buildings except for particularly historic structures, by new buildings such as the Lewis & Clark Building of the Department of Natural Resources and the Department of Health State Health Lab, which have been completed, and are operating on a part of the former prison site. For additional details, go to the MSP redevelopment section of this document.

Missouri State Penitentiary Redevelopment Master Plan

The Jefferson City Correctional Center, historically named the Missouri State Penitentiary (MSP), recently vacated a 142 acre site in Jefferson City in 2004. The Missouri State Penitentiary Redevelopment Framework Plan is the plan to guide the redevelopment of the facility. Development oversight is provided by the Missouri State Penitentiary Redevelopment Commission.

The MSP site is bounded on the north by the Missouri River and the Union Pacific Railroad; on the east by privately owned land and Riverside Park; on the south by Riverside Drive, Capitol Avenue, Lafayette St. and East State St; and on the west by land owned by the Jefferson City Housing Authority.

The Master Plan will change over time as development opportunities arise with more detailed programmatic statements, detailed designs and more extensive site investigations. The plan established seven primary land use areas that identified the redevelopment potential within the context of the historical, cultural and functional aspects of the existing MSP site. These elements have formed the basis of the program statement, identifying five land use classifications districts.

Table 21: Master Plan District Proposed/Reuse Area Master Plan Parking

Public Service Campus	225,000 square feet	485 Structured Spaces
MSP Historic Area	310,048 square feet	600 Structured Spaces
Public Assembly Campus	605,500 square feet	1300 Structured Spaces
Office Campus	1,000,000 square feet	450 Structured Spaces
Natural Resources Area	NA	15 Surface Spaces
Total	2,105,548 square feet	3,850 Parking Spaces

Portions of the Office Campus have already been constructed. The Department of Natural Resources Lewis & Clark Building is approximately 120,000 square feet. A second Office Campus building has also been completed, housing the 80,000 square foot State Health Lab, and a new $71 million federal

courthouse to serve the Missouri Western District Court.

The roadway system outlined in the Master Plan is a combination of new roadways within the MSP site and utilization of the existing street network. The MSP Parkway extends in an east-west direction from East State Street at Marshall Street, through the prison site, east to East Capitol Street near Dawson Street. The Chestnut Street Parkway will connect into the MSP Parkway as will the Office Campus Loop Road, which will also connect the MSP Parkway to Riverside Drive.

The MSP Parkway as well as the Chestnut Street Parkway connector will serve as entrance gateways to the redevelopment project. Signage, plantings and gateway features will be incorporated into the intersections at East State Street, East Capitol Street and Riverside Drive.

Connections to the neighborhood will be reinforced with "wagon gate" openings in the existing wall that remains, located at Cherry Street and at the intersection of East State Street and Lafayette Street. In addition there will be open pedestrian access where the wall will be removed at the extension of Lafayette Street to the MSP Parkway and along the western side of the Chestnut Street Parkway. Internally, pedestrians will have safe access throughout the site with designated pedestrian crossings and internal walkways and corridors, free of vehicular conflicts. The Natural Resource Area will contain an extensive "nature trail" system that will serve the working population, the neighborhood and the entire community.

The new roadways will converge east of the prison wall at Chestnut Street. Rather than a four way lighted intersection, The Master Plan proposes a roundabout at the intersection of the MSP Parkway, Chestnut Street Parkway and the Office Campus Loop Road. The roundabout will efficiently distribute traffic, provide for traffic calming and create an opportunity for aesthetic enhancements such as decorative paving, lighting, signage, art work, water features, monuments, etc.

The Master Plan provides for 3,850 parking spaces within the MSP site. The parking is distributed throughout the MSP site. Because of the density of the proposed development, the physical topographic site features and a desire to preserve open space, the Master Plan recommends the majority of parking to be structured spaces.

The Master Plan provides pedestrian access between the various districts within the MSP project area as well as to land uses surrounding the MSP site. The campus planning principle which has guided the development of the Master Plan places great emphasis on consolidated perimeter parking, direct service/emergency access and extensive pedestrian connections. Vehicular movements and vehicular/pedestrian conflicts should be minimized with "shuttle bus" connections to the Capitol Complex, downtown, and other business, entertainment, and education venues.

Figure 6: Missouri State Penitentiary Redevelopment - Master Plan Proposed Districts

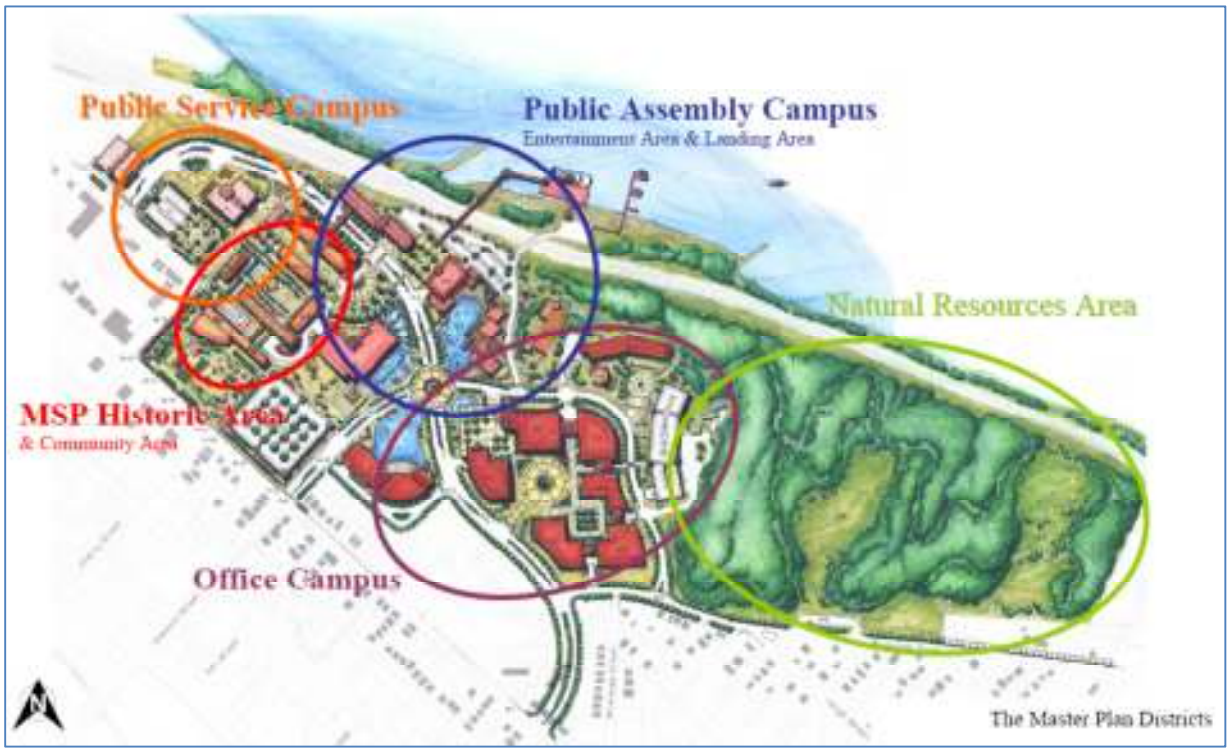


Figure 7: M S P Redevelopment – Master Plan Proposed Roadways and Parking Areas

Other Urbanizing Development Locations

- **Central East Side Neighborhood Plan** - The prison redevelopment program is complemented by a City of Jefferson Central East Side Neighborhood Plan adopted in 2006.
- **MO Rt. 179** - A potentially important location undergoing development is the area east and west of a midpoint on MO Rt. 179, between MO Rt. C and W. Edgewood Drive to provide access to adjacent properties. Development is underway with a hospital and associated medical services and proposed new schools on the east side of MO Rt. 179, along with anticipated office buildings, and undetermined future development on the west side of MO Rt. 179 with an estimated 80 to 120 acres of retail/commercial land use.

  Additional development along the MO Rt. 179 corridor from W. Edgewood Drive to the south will also increase accident and congestion problems, especially at the MO Rt. 179 US 50 interchange. Rapid development along W. Edgewood and the proposed interchange on a MO Rt. 179 midpoint between MO Rt. C and W. Edgewood will also become a major issue.
- **The West Edgewood corridor** - from Stadium Blvd. to Country Club Rd. is a rapidly developing commercial corridor near to the Rt. 179 corridor. Additional residential development, situated behind the commercial corridors is expected to be at least 10-15 years out.
- **East McCarty at US 50** – A continued increase in retail and commercial development is expected with the construction of a large retail center and new interchange at the current East McCarty/City View Drive and US 50 intersection along with the completion of E. McCarty corridor improvements with roadway expansion curb and gutter, and sidewalks. Additional roadways and sewers are expected to extend into nearby areas to the south of US 50 at E. McCarty St.
- **Stoneridge Parkway** - The Stoneridge Parkway area south of Missouri Boulevard and west of Stadium Boulevard continues to develop commercial/retail uses, as will MO Rt. 179 at Christy Drive to the south.
- **Schott Hill Woods Drive** - The Schott Hill Woods Drive extension to the E. McCarty/City View Drive interchange area is expected to develop into a commercial area.
- **Militia Drive at Algoa Road** - The Chamber of Commerce industrial Park at Militia, Algoa and surrounding areas are developing into commercial/industrial uses.
- **Wildwood Drive** - Residential development is anticipated in the areas west of MO Rt. 179 from MO Rt. C to W. Edgewood Drive and along Rock Ridge Road after 2010. Other residential areas will develop as opportunities exist, with probable locations shown on the future land use map. Wildwood Drive will be extended southward from W. Edgewood to Rock Ridge Road facilitating future development.
- **Capital Mall US/50 Truman Blvd**. **area** – expect continued commercial development and adaptive reuse strategies for the Capital Mall leading to a resurgence of commercial activities in a stagnant office area to the north of the mall.

Transportation Corridor Development

The 2035 Metropolitan Transportation Plan includes future transportation corridors for long-range planning. Planning for future major transportation corridor developments should occur as early as possible. Several conceptual future transportation corridors are described in this section in the form of arterial roadways.

Missouri has legislation that allows MoDOT to file Corridor Preservation (CP) plans that identify priority corridors. DOT is notified of all developments sought along these corridors and the state has 120 days to approve the development, negotiate the project, or buy the property. The statute is not used much outside of St. Charles County because it only applies to counties that have zoning. There are also no budget allocations for this program. [44]

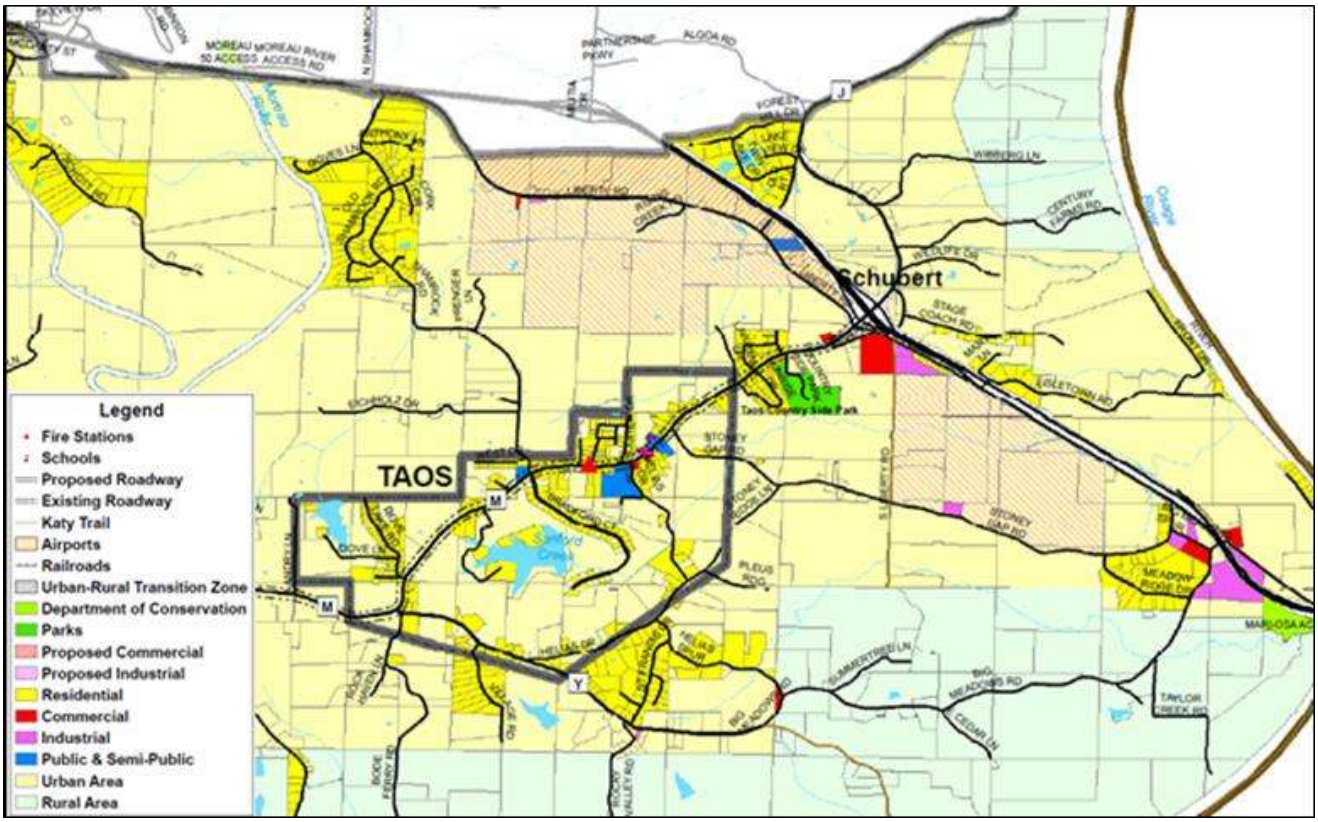
Corridor preservation tools might include, but are not limited to:

1. annexation or development agreements (land owner agreements)
2. regulating the use of such land (land use regulations)
3. acquiring property rights within a corridor (land acquisition)

In Missouri, transportation corridor planning takes place primarily within the context of a Major Transportation Investment Analysis (MTIA), and may also be referred to as a Major Investment Study or MIS. The following corridors have been identified as potential future development and MTIA candidates.

Eastern Cole County Corridor Projections

The Cole County Master Plan referred to as the Corridor Land Use Plans of the county plan includes a section of the Highway 50 Corridor. This section of the land use plan for the area between the City of Jefferson and Taos describes how it will develop into an urban area. Figure 7 of the plan shows proposed commercial development north of Liberty Ln south of US 50 and proposed industrial development south of Liberty Ln.[45]



Northwest Cole County

New residential and commercial development in the areas northwest of the current city limits. Development and a new elementary school roughly west of Jefferson City limits, and north of Apache Flats, could increase traffic on Henwick Lane, Rainbow Drive, Scott Station Road, and Schumate Chapel Road possibly developing into minor arterial streets.

Safety and congestion will become more of an issue as increased development along the MO Rt. 179 northwest corridor produces increased traffic and delay at the Cole Junction crossing due to rail traffic.

As urbanization accelerates between Henwick Lane, Scott Station Road, and Schumate Chapel Road, the City and County will require arterial intersections and a connecting arterial within this area, about a mile northwest of the current city limits roughly outlined by Truman Boulevard. The arterial should be extended northward to MO Rt. 179. Current roadways are inadequate to carry increased traffic from development, being the top of a ridge, with housing on both sides, right of way for road widening may be impossible to acquire. The preferable route is a north south arterial connecting all three roadways.

Henwick Lane and Rainbow Drive empties onto Country Club Drive, an outer road to US 50 connecting Business 50 to the west and Truman Boulevard at US 50 on the east. It will likely be under pressure to carry more traffic than intended, increasing congestion at the Truman Blvd/ S. Country Club Rd, US 50 interchange.

A second arterial connector, a mile northwest of the proposed arterial connector should be anticipated to link Henwick Lane, Scott Station Road and MO Rt. 179, near the Elston Road intersection. Both of these arterials should be included in a corridor preservation plan to assist in planning for new development and reduce future infrastructure costs.

Big Horn Drive interchange on US 50 remains an underutilized interchange – serving local traffic only. Utilizing Big Horn Drive for future beltways around Jefferson City, connecting with MO Rt. 179 to the north and south, and with US highways 50 and 54 should be included in a Major Investment Study.

Southwest Jefferson City/Cole County

Public participation and focus group activities in preparation of the Metropolitan Transportation Plan indicate public awareness of deficiencies in travel through the center of Jefferson City along the principal arterials, the highways of US 50, 63, and 54.

Public participation activities also indicate an interest in development of an outer arterial or beltway to the southwest of Jefferson City from US 50 to US 54.

Southeast Jefferson City/Cole County

In conjunction with a beltway on the southwest side of Jefferson City is an outer arterial or beltway to the southeast of Jefferson City, from US 54 to US 50, bypassing the tri-level and Whitton Expressway for routes that would not cross the Missouri River. Public participation and focus group activities also indicate an interest in development of an outer arterial or beltway to the southeast of Jefferson City from US 54 to US 50.

Missouri River Crossing Corridors

Also recommended in public participation and focus group activities is the need for an additional river crossing to the east or west of the existing bridges. The east crossing, extending south of the Missouri River east of Jefferson City is more popular with linkage to US 63 in Osage County. An alternate crossing has also been suggested, extending from US 63 to MO Rt. 179, landing near the Cole Junction area of MO Rt. 179.

With the nearest alternate river crossings an hour away, the existing bridges are critical transportation infrastructure, vulnerable to flooding or structural damage. Combined with the tri-level and the Whitton Expressway, alternate routes bypassing these choke points need to be considered through Major Transportation

Investment Analysis.

Continuing Safety and /Congestion Issues

The Whitton Expressway will continue to be the most obvious congestion issue with peak period congestion a chronic condition. Solutions have not progressed past the Problem Definition Study, and the Whitton Expressway Environmental Impact Statement. However, with funding reductions, significant improvements may be limited in the short term.

The accident rates and congestion on the Rex Whitton Expressway from the Tri-level to Eastland Drive will get worse as the Missouri penitentiary redevelopment program occurs east of the CBD, along with eastside area redevelopment progress. MoDOT estimates that this traffic will double within 20 years.

US 50/Whitton Expressway from US 50/63 east to Clark Avenue will require grade separation from current cross traffic streets and alternative route development along the corridor. The Missouri River crossing at US 50/54/63 and US 50 corridor will be the choke point for Jefferson City, with the primary highway corridors of US Highways 50, 54 and 63 all passing through this point.

Ellis Blvd./US 50 and Stadium Blvd. at Jefferson St. - Interchanges with multiple signals and intersections that are way too close together, such as US 54 @ Ellis Blvd., US/54 off ramp/Stadium Blvd @ Jefferson St. and Christy Dr., US 50@ Missouri Blvd and 179, and at Truman Blvd. @US/50/S. Country Club interact to produce LOS D and E conditions, and will continue to do so into the foreseeable future. All of the interchange areas are in heavily commercialized areas, on main thoroughfares. Stadium/Jefferson St. and Christy Dr. are access routes to the two high schools in the City and the Capital Region Hospital.

All commercial or institutional locations at these intersections/interchanges have expansion plans and will continue to increase the congestion and potential accident levels.

Section 4 Congestion and Travel Forecasting

Area Commuting and Travel Patterns

Commuters traveling between counties, specifically Boone, Callaway, and Cole counties account for significantly longer work trips into and out of the CAMPO area, and most likely include trip chaining.

CAMPO attempts to identify how well the transportation network operates and where problems are expected to develop by using mathematical models to simulate the network. The method used is referred to as travel demand modeling.

Table 22: Where Commuting Workers Employed in the CAMPO MPA Live

Where (Primary Jobs) Workers Live That are Employed and Commute to the CAMPO Planning Area		
	2010	
	Count	**Share**
Cole County, MO	21,956	42.1%
Callaway County, MO	4,480	8.6%
Boone County, MO	3,557	6.8%
Osage County, MO	2,606	5.0%
Moniteau County, MO	1,813	3.5%
Miller County, MO	1,514	2.9%
St. Louis County, MO	1,210	2.3%
Jackson County, MO	920	1.8%
St. Charles County, MO	647	1.2%
Greene County, MO	558	1.1%
All Other Locations	12,836	24.6%
Total Primary Jobs	52,097	100.0%

Source: U.S. Census Bureau, On The Map Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2010).

Table 23: Commuting Distance of Workers Living Outside the MPA

Commute Distance of Workers Who are Employed in the CAMPO Planning Area - 2010		
	Count	**Share**
Less than 10 miles	22,151	42.5%
10 to 24 miles	9,495	18.2%
25 to 50 miles	7,072	13.6%
Greater than 50 miles	13,379	25.7%
Total Primary Jobs	52,097	100.0%

Source: U.S. Census Bureau, On The Map Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2010).

Table 24: Commuting Distances of Workers Living in the MPA but Working Outside the MPA

Commuting Distances of Workers Living in the CAMPO Planning Area But Working Outside of the MPA - Year 2010		
Range of Commuting	**Count**	**Share**
Less than 10 miles	19,963	65.1%
10 to 24 miles	2,398	7.8%
25 to 50 miles	2,742	8.9%
Greater than 50 miles	5,552	18.1%
Total Primary Jobs	30,655	100.0%

Source: U.S. Census Bureau, On The Map Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2010).

Table 25: Where Workers That Live in the MPA Work

Where Workers That Live in the MPA Work		
County of Employment	**2010**	
	Count	**Share**
Cole County, MO	19,894	64.9%
Boone County, MO	2,185	7.1%
Callaway County, MO	1,660	5.4%
St. Louis County, MO	1,085	3.5%
Jackson County, MO	531	1.7%
St. Louis city, MO	406	1.3%
Greene County, MO	320	1.0%
St. Charles County, MO	300	1.0%
Osage County, MO	298	1.0%
Camden County, MO	263	0.9%
All Other Locations	3,713	12.1%
Total Primary Jobs	30,655	100.0%

Source: U.S. Census Bureau, On the Map Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2010).

Table 26: CAMPO Employment Travel in the MPA at One Point in Time

In Area Employment Efficiency (2010)	Count	Share
Employed in the CAMPO Planning Area	52,097	100.0%
Employed and Living in the CAMPO Planning Area	20,259	38.9%
Employed in the CAMPO Planning Area but Living Outside the CAMPO Planning Area	31,838	61.1%

Congestion

Congestion may be defined as usage nearing the limits of all or part of a transportation systems capacity. For the purposes of transportation planning The Transportation Research Board has identified two definitions of congestion, (as it relates to travel time and speed.)

- "Congestion is travel time or delay in excess of that normally incurred under light or free-flow travel conditions."
- "Unacceptable congestion is travel time or delay in excess of an agreed-upon norm. The agreed-upon norm may vary by type of transportation facility, travel mode, geographic location, or time of day." [46]

In transportation planning, congestion has two distinct forms, recurring and non-recurring. In the "recurring" form of congestion, the congestion repeats as to a location or time of day such as a peak hour. While in the "nonrecurring" form of congestion, the congestion is due to an unusual occurrence such as periodic natural events, a traffic accident, maintenance activities or some other irregular event.

- Recurring Congestion - "The recurring type of congestion is more complex than non-recurring congestion, and usually receives most of the planning and policy activities. Recurring congestion is primarily a product of transportation demand related to the activity patterns of society, and tends to be concentrated into short time periods, such as "rush hours". Recurring congestion is commonly addressed by the use of policy options such as transit, growth management, traffic operational improvements, and transportation demand measures."[47]
- Nonrecurring Congestion - A common non-recurring form of congestion is caused by accidents or vehicle break-downs and focuses on clearing the accident or inoperable vehicle, and whenever possible, rerouting or redirecting traffic through or around the activity. This type of congestion management is referred to as "incident management".

Maintenance activities also require the management of congestion, but at a less crisis oriented time frame. Generally, maintenance occurs in a more organized manner that traffic can prepare for and adjust to through rerouting or redirection of traffic.

Most nonrecurring congestion strategies include freeway management systems, and advanced traffic management strategies, using sophisticated technical, communications, and organizational strategies.

The Capital Area MPO is not required to initiate Congestion Management Programs within the CAMPO planning boundaries. Other extreme non-recurring congestion can be exemplified by evacuations in natural disasters or other emergency situations requiring emergency management actions and previously prepared emergency plans.

Forecasting Future Travel Demand

Travel Demand Forecasting

The modeling process is a system-level effort. Although individual links of a highway network can be analyzed, the results are intended for determination of system-wide impacts. At the system level, impacts are assessed on a broader scale than the smaller, localized project level.

Method

CAMPO required inclusion of portions of Callaway and Cole County to be included for travel modeling and Transportation Analysis Zone (TAZ) development. Travel demand forecasts included current travel demand, demand out to year 2020, and a long term planning horizon of year 2030.

The model used current population and development information, based on census data and parcel data to determine existing generalized land use, and forecasted future population and land use development to 2035 as inputs to the travel demand model. The following methods were used to determine residential and commercial development out to year 2035.

- The functional classification of the road network had been developed earlier, so traffic counts on roadway links, and turning movements at selected intersections were conducted for calibration purposes.
- 2010 census population data formed the baseline population.
- 2000 to 2010 growth rates were identified for CAMPO area, and then future growth rates for Callaway and Cole County portions of CAMPO area were calculated.
- Municipal populations within CAMPO area were calculated, along with the urban and rural proportions of CAMPO.
- Parcel data for Cole and Callaway Counties, from County Assessor files were used to help determine an initial land use classification and specific facility size and class of properties.
- Properties were defined using both general land use classification codes and ITE land use classifications codes.
- Maps developed through the City of Jefferson Geographic Information System were used to evaluate development potential for currently undeveloped areas within CAMPO. Development constraints, such as flood plains, steep slopes, and provision of sewers and utilities were used to identify physical limitations to future development.
- Significant identifiable commercial and residential developments, (within 5-10 years) were included in the future land use map. Other less identifiable development (15-20 years out) was added to the future land use map later, but with less detail.
- New roads were added to the network first, as projects that clearly were going on the network such as interchanges, arterials and corridors for arterial roads.

Projected travel demand for people and fright

The number of vehicle miles of travel (or VMT) is an indicator of the roadway system travel levels by motor vehicles and is an estimate, based upon traffic volume counts and roadway lengths, for a specific point in time. So, estimated VMT was determined by the use of the CAMPO travel demand model at three points in time with 10 year intervals

VMT: Vehicle miles of travel - the number of vehicles on a link, generally for a daily period, multiplied by the length of the link, in miles. The VMT for a study area is the sum of the VMTs for each link.

Forecast Future Travel Demand

Daily VMT New MPO MPA (modeled roads only)

Year 2010 = 1,759,282 Vehicle Miles Traveled

Year 2020 = 1,909,957 Vehicle Miles Traveled

Year 2035 = 2,055,874 Vehicle Miles Traveled

Projected Traffic Volumes to Capacity (V/C)

Generally, intersections are the congestion points in the roadways. Intersections generate conflicts with turning movements, differences in vehicle speeds, and cross traffic requirements for stoplights.

Intersections that have reached their maximum ability to move traffic through that intersection are said to have reached 100% of their capacity. The result is traffic backup, delays, and possible "gridlock" during peak hours in the morning and evening, with the evening congestion frequently being of longer duration.

Other congestion methods such as Levels of Service or LOS may be used (including intersection and road segment levels of service) but the modeling software and methodology used here lends itself more to intersection volume and capacity measurements.

The following levels of service are listed for reference, and may be found in the Highway Capacity Manual and AASHTO Geometric Design of Highways and Streets.

LOS A = a Free flow
LOS B = a reasonably free flow
LOS C = a stable flow
LOS D = approaching an unstable flow
LOS E = an unstable flow
LOS F = forced flow or breakdown in flow

Table 27: 2020 and 2035 Critical Intersections Level of Service

			2010		2020		2035	
	Intersection	Sig/Unsig*	Delay	LOS	Delay	LOS	Delay	LOS
1.	US-54 SB Ramps & Simon Blvd	U	24.6 (SB)	C	33.1 (SB)	D	92.2 (SB)	F
2.	Missouri Blvd EB Ramps & Rte. 179	S	13.9	B	14.1	B	14.2	B
3.	US-50 EB/Horner Rd & Truman Blvd	S	18.3	B	20.5	C †	22.3	C †
4.	Stadium Blvd & Jefferson St	S	34.0	C †	38.3	D †	38.6	D †
5.	Missouri Blvd & Dix Rd	S	29.9	C †	31.3	C †	31.9	C †
6.	Missouri Blvd & Beck St	S	19.3	B	19.7	B	19.9	B
7.	US-54 NB Ramps & Ellis Blvd	S	23.8	C	24.1	C	27.8	C
8.	US-50/63 EB Ramps & Eastland Dr	S	10.7	B	11.7	B	11.8	B
9.	Rte. B/W/M**	U	16.9 (WB)	C	20.1 (WB)	C	20.0 (WB)	C
10.	US-50/63 WB Ramps & Militia Dr	U	8.7 (WB)	A	8.8 (WB)	A	9.2 (WB)	A
11.	US-50 EB/Horner Rd & Big Horn Dr	U	15.7 (WB)	C	16.5 (WB)	C	18.9 (WB)	C

**For unsignalized intersections the delay/LOS reported are for the worst movement at the intersection.*

***Intersection 9 was analyzed as a two-way stop (east-west stop) because Synchro does not allow analysis of the actual configuration (3-way stop at a four-way intersection).*

† *One or more movements operate at LOS E.*

Figure 8: Map of Forecasted Traffic Volumes in 2035 on Major Routes

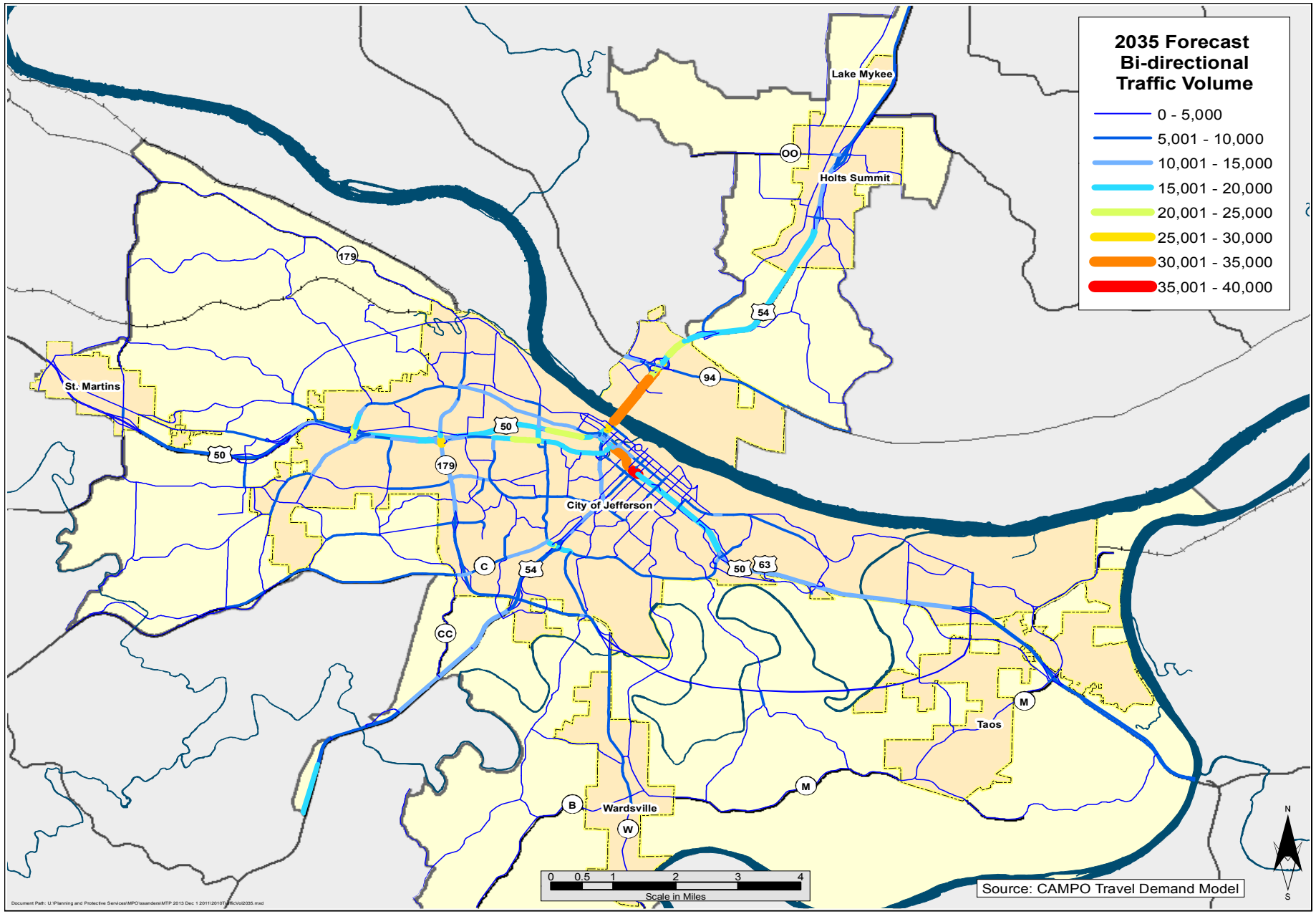
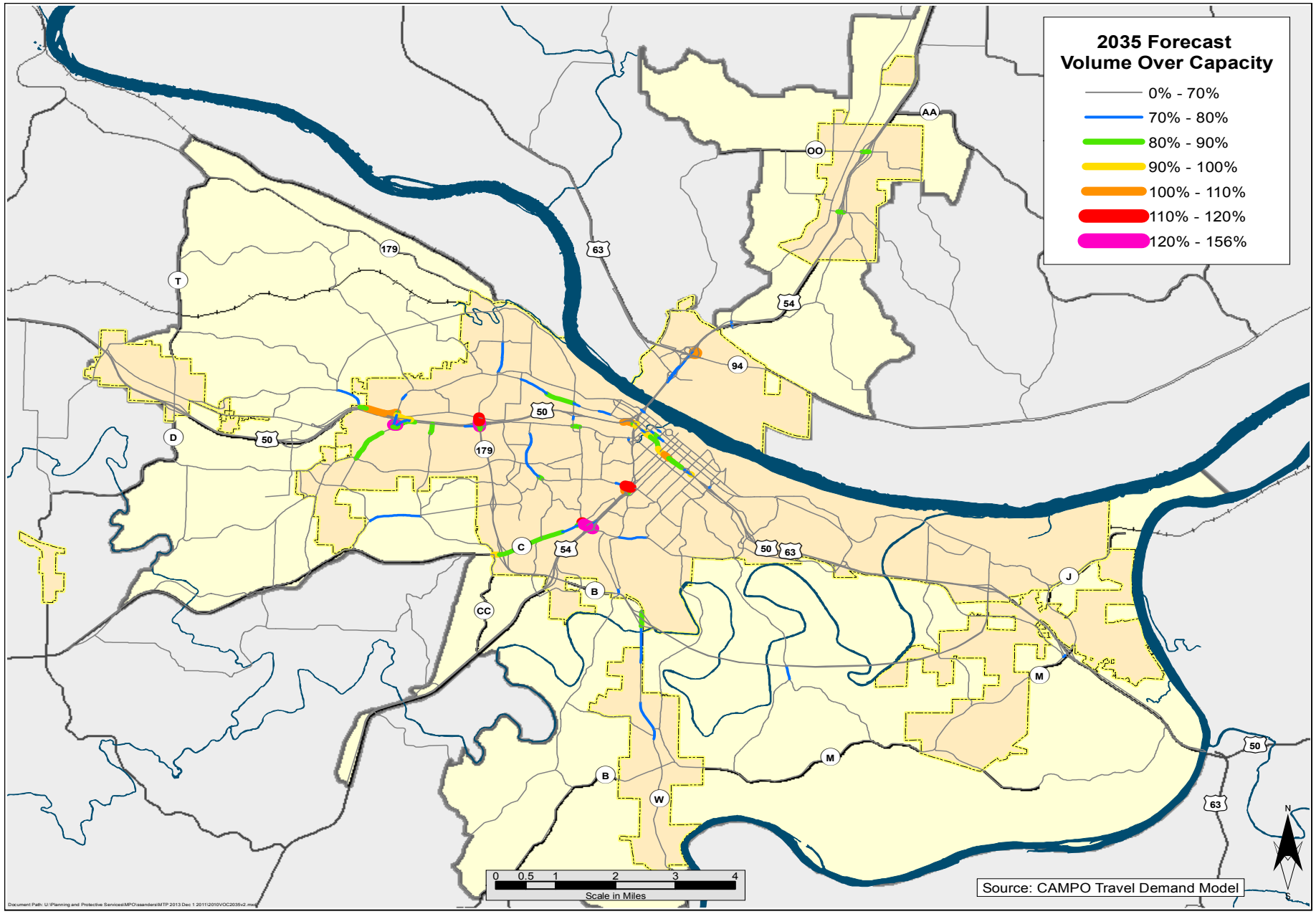


Figure 9: Forecasted Locations Where Traffic Volume Exceed Capacity



Section 5 Strategies and Capital Investment

Transportation Management & Operations Strategies[48]

MAP-21 encourages the adoption of policies that promote efficient management and operation of surface transportation. This includes a greater shift toward applying technology to addressing transportation needs. CAMPO is including this information for the benefit of CAMPO membership and to assist in better understanding the opportunities and options available for programming and projects utilizing Transportation Management and Operations in their plans.

The term transportation systems management and operations' generally refers to integrated strategies to optimize the performance of existing infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of the transportation system.

Some of the types of Federal-aid projects that may be funded under Transportation Systems Management and Operations-include--

1. actions such as traffic detection and surveillance
2. corridor management
3. freeway management
4. arterial management
5. active transportation and demand management
6. work zone management
7. emergency management
8. traveler information services
9. congestion pricing
10. parking management
11. automated enforcement
12. traffic control
13. commercial vehicle operations
14. freight management, and
15. coordination of highway, rail, transit, bicycle, and pedestrian operations; and
16. coordination of the implementation of regional transportation system management and operations investments such as:
    a. traffic incident management
    b. traveler information services
    c. emergency management
    d. roadway weather management
    e. intelligent transportation systems
    f. communication networks, and information sharing systems requiring agreements, integration, and interoperability to achieve targeted system performance, reliability, safety, and customer service levels

Specialized Transportation - Human Services Transportation Strategy

CAMPO will support increased FTA Section 5310 funding for non-profit agencies seeking to acquire vehicles for the transportation of elderly and individual with disabilities and assist in facilitating Human Services transportation coordination efforts as provided for in the Coordinated Public Transit Human Services Transportation Plan.

Access Management Strategy

Access Management (AM) is the proactive management of vehicular access points to land parcels adjacent to all manner of roadways[49]. Most opportunities for removing conflict points lie in the consideration for turning movements to driveways, and in the frequency of, or separation between, streets crossing arterials and highways.[50]

An effective Access Management Program should address the following situations:

1. the Facility Hierarchy
2. Intersection and Interchange Spacing
3. Driveway spacing
4. Traffic signal spacing
5. Median treatments and median openings
6. Turning lanes and auxiliary lanes, and
7. Street connections

CAMPO recommends and supports improvements in access management planning for urbanized areas of CAMPO, improving traffic flow, reducing conflicts, and congestion through the application of planning, regulatory, and design strategies such as:

1. Policies, directives, and guidelines issued by state and local agencies having permit authority on development and roadway infrastructure improvements
2. Regulations, codes, and guidelines that are enforceable
3. Acquisition of access rights by states and local jurisdictions that serve to protect transportation interests and enable sufficient infrastructure is built
4. Land development regulations by state and local jurisdictions that address property access and related issues
5. Development review and impact assessments by state and local jurisdictions
6. Good geometric design of transportation facilities, and
7. Understanding of access implications by businesses and property owners.

MoDOT currently has guidelines and the City of Jefferson has an Access Management Plan in development.

Asset Management

CAMPO supports and encourages the development of public asset management programs and plans:

Public asset management especially "transportation asset management" (TAM) can provide a valuable tool to maximize transportation system performance, improve system user satisfaction, and minimize life-cycle costs of transportation infrastructure.

Pavement management systems and programs such as the MoDOT Rail Asset Management Business Plan are but two examples of existing asset management programs.

Benefits of Applying Transportation Asset Management

1. Maximize transportation system performance.
2. Improve customer satisfaction.
3. Minimize life-cycle costs.
4. Match service provided to public expectations.
5. Make more informed, cost-effective program decisions and better use of existing transportation assets.

According to FHWA, an asset management program can:

1. Track system condition, needs, and performance.
2. Clearly identify costs for maintaining and preserving existing assets.
3. Clearly identify public expectations and desires.
4. Directly compare needs to available funding, including operating and maintenance costs.
5. Define asset conditions so that decisions can be made on how best to manage and maintain assets.
6. Determine when to undertake action on an asset such as preservation, rehabilitation, reconstruction, capacity enhancement, or replacement.

Corridor Preservation Strategy

Jefferson City, Holts Summit and St. Martins have subdivision codes and can preserve transportation corridors if adopted as part of the local "major street plan". Cole County has adopted planning authority and has the authority to preserve corridors as adopted in the county's Master Plan. Callaway County has not adopted planning or zoning authority at this time.

Missouri also has state legislation that allows MoDOT to file a corridor preservation plan that identifies priority corridors. MoDOT is notified of all developments sought along these corridors and the state has 120 days to approve the development, negotiate the project, or buy the property. However, this applies only to counties that have zoning.[51]

CAMPO encourages local jurisdictions with authority to provide for transportation corridors preservation, minimizing development within an identified future transportation corridor by maintaining current thoroughfare plans and will encourage local jurisdictions lacking the proper planning authority to preserve corridors, to obtain such authority.

Transportation Safety Strategies

Federal law requires that the State and Metropolitan transportation planning process be consistent with Strategic Highway Safety Plans.[52]

CAMPO cooperates and assists with the public transportation operators, public service organizations, the State of Missouri and Federal agencies in promoting improved safety for the transportation system and the users of that system.

CAMPO will continue to improve safety data through data management, collection methods and related performance data in accordance with federal safety performance mandates directed at the states.[53] [54]

Congestion Strategies

CAMPO continues to encourage and support local activities to help forecast future travel demand and identify intersections and roadways where congestion will be an issue in the future in order to make best use of transportation investments. Use of the most recent travel demand model and coordinated traffic count databases contribute to identifying local congestion problems.

As far as traffic congestion on arterial streets, capacity and the level of congestion depend on intersection traffic control and management strategies, as well as design, pavement width (number of through and turning lanes) and access control.

From an economic and efficiency standpoint, Campo must support and advocate strategies previously identified in Transportation Systems Management and Operations as preferable to expansion and widening. This also supports system preservation efforts of MoDOT.

Public Involvement

CAMPO encourages public participation and will accommodate individuals with a disability or limited English skills with prior notice of their need.

CAMPO will aggressively seek public participation in its activities, as outlined in the CAMPO Public Participation Plan. Other public involvement pertaining to nondiscrimination actions for individuals that are not proficient in English are contained in the Limited English Proficiency Plan. Both the PPP and LEP are located online at http://www.jeffcitymo.org/cd/campo/publicparticipation.html.

Improve Security of the Transportation System for Motorized and Non-motorized Users

CAMPO will work with public transportation operators, public service organizations, the State of Missouri and Federal agencies in promoting improved security for the transportation system and the users of that system.

CAMPO will encourage coordination and participation in security planning in local agency operations such as the Regional Planning Commission (RPC) and Homeland Security Committees.

The Transportation Planning Process

CAMPO strives to adhere to a continuous, cooperative and comprehensive planning process and provide for consideration and implementation of projects, strategies and services that will address the MAP-21 planning factors.

Regional Initiatives

The MPO periodically reviews the priorities that are identified as initiatives that extend past the MPA, into other parts of Missouri but are of common interest to other regional planning commissions (RPCs) and MPOs. These "Regional Initiatives" are of an extraterritorial nature to CAMPO and require additional coordination with the RPCs and MPOs.

Table 28: Regional Initiatives

Illustrative Need	Description
US 50 West of California, to Sedalia	Four-lane facility and improvements
US 50 from East of Jefferson City to Linn, to Union	Roadway Expansion to four-lane facility and improvements
Designation of US 54 as Interstate	"I-54" from Hannibal, Missouri to I-44 at Lebanon, Missouri
Second Missouri River Bridge crossing	New Missouri River Bridge

Sidewalk Projects: Programs for safer movement of pedestrians.

CAMPO will continue to seek Safe Routes to School funding through the local jurisdictions for improvements to travel to and from schools, Transportation Enhancement grants, STP funding, and set aside municipal funds in addition to local match requirements.

Staff suggests that the cities establish a fairly sophisticated program of annual sidewalk maintenance and repair, and be responsible for the maintenance of sidewalk damage caused by vehicle accidents, water main breaks and natural subsidence and have the property owners be responsible for the repair or replacement of their sidewalk when damaged by privately owned tree roots, heavy vehicle traffic or drainage from private property.

If the sidewalk is raised or cracked because of a City owned tree, the jurisdiction should make the repairs (at the request of the property owner). In addition, the City should split the cost with the property owner as part of the 50/50 Cost Sharing Program in the event that sidewalks are simply old and deteriorated.

The fee should be based on a per square foot cost and be the same for all neighborhoods of the City and the area to be repaired must be at least 75 square feet of old and deteriorated sidewalk not including the section of sidewalk directly behind the driveway entrance.

Sidewalks should be upgraded to conform to ADA standards, at the very least.

Street & Road Projects: Programs for efficiency, safety and congestion.

These cover a wide range of projects in jurisdictions throughout the MPA, including MoDOT. All projects are at specific locations throughout CAMPO. Projects are reflected in the locally developed long range transportation plans or Capital Improvement Programs of the cities or counties.

Redevelopment Projects: Transportation and land use redevelopment for established areas.

There are two major redevelopment projects in the CAMPO area - the Missouri State Penitentiary (MSP) Redevelopment Plan and the Central East Side Neighborhood Plan. The MSP actually falls within the Central East Side Neighborhood Plan area. Both of these redevelopment projects have detailed plans.

Greenway and Trail Projects: Ongoing programs of safe bicycle and pedestrian facilities.

Area Greenway / Trail projects are part of the Jefferson City Area Greenway Master Plan and are designed to create a connected non-motorized vehicle system. Other projects and programs are contained in the Holts Summit and St. Martins transportation plans.

Bridge Projects: Programs for repair and replacement for critical infrastructure:

CAMPO is continuing to improve the bridge inventories of the MPA, and supporting prioritization of bridge repair and maintenance.

Transit Projects: Programs for public transportation: These transit projects are also fiscally constrained.

Most of these projects have been identified as recommendations from various previous transportation studies or plans. A few projects have also been identified or suggested by the public as a result of the CAMPO public participation process. Improvements and project priorities are originated in the transit improvement program, the Capital Improvement program, or transportation plan of the transit provider.

Section 6 The Regional Financial Plan

Fiscally Constrained Investment Plan 2013 – 2035

Capital investment in transportation projects that have been identified to replace or repair facilities or increase capacity and safety based on regional priorities and needs are listed in this section. Investment such as this is designed to preserve the existing as well as the projected future metropolitan transportation infrastructure needs. These capital investment projects and strategies address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the transportation system.

These projects have been segmented into eight groups – sidewalk projects, street & road projects, redevelopment projects, greenway or trail projects, bridge projects, transit, airport, and rail.

The regional financial plan demonstrates how the adopted transportation plan can be implemented. The financial plan contains an Operations and Maintenance section that includes system level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways.

The financial plan also contains estimates of funds that will be available to support the MTP implementation, necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan are identified. The financial plan contains a section on recommendations on any additional funding strategies to fund projects and programs included in the MTP.

Table 29: Fiscally Constrained Investment Program

Project	2013	2014	2015	2016	2017
Sidewalk Projects					
Transportation Enhancement - Holts Summit Sidewalk (2013-11)	$53,910	$309,955			
Boonville Road Sidewalk (Wayne Ave to Belair Multiple Phases)			$200,000		
Ellis Blvd Sidewalk (Schott Hills Woods to US54 Multiple Phases)	$300,000				
Missouri Blvd. Sidewalk Project Phase 2	$463,723				
Miscellaneous Emerging Sidewalks Projects, ADA Improvements & Contingency- Locations TBD	$225,102	$231,855	$238,810	$245,975	$253,354
Street and Roadway Projects					
Stadium & Jefferson Intersection Improvement - lane addition on hold					$740,000
Scotts Station Road and Truman Boulevard - Signal Installation				$158,000	
Business 50 West Curb & Gutter		$200,000	$1,750,000		
Stadium at Edgewood intersection Improvement		$700,000			
Dunklin at Lafayette Intersection Improvement				$700,000	
US50/Lafayette Interchange	$2,000	$1,996,000	$17,116,000		
US/50 Eastbound lanes UBAWS pavement improvements	$820,000				
US/50 Westbound lanes UBAWS pavement improvements	$524,000				
Route M - Pavement Improvements	$408,000				
Route 179 - Pavement Improvements	$16,000	$1,489,000			
Route 50 - Pavement Improvements from east of Truman Blvd & from Moreau River westbound	$3,000	$47,000	$2,368,000		
Route 50 - Pavement Improvements From West of Dix Rd to East of Clark Avenue	$2,000	$27,000	$1,369,000		
Business 50 - Pavement Improvements Stoneridge Parkway to near Route 50	$2,000	$15,000	$1,590,000		

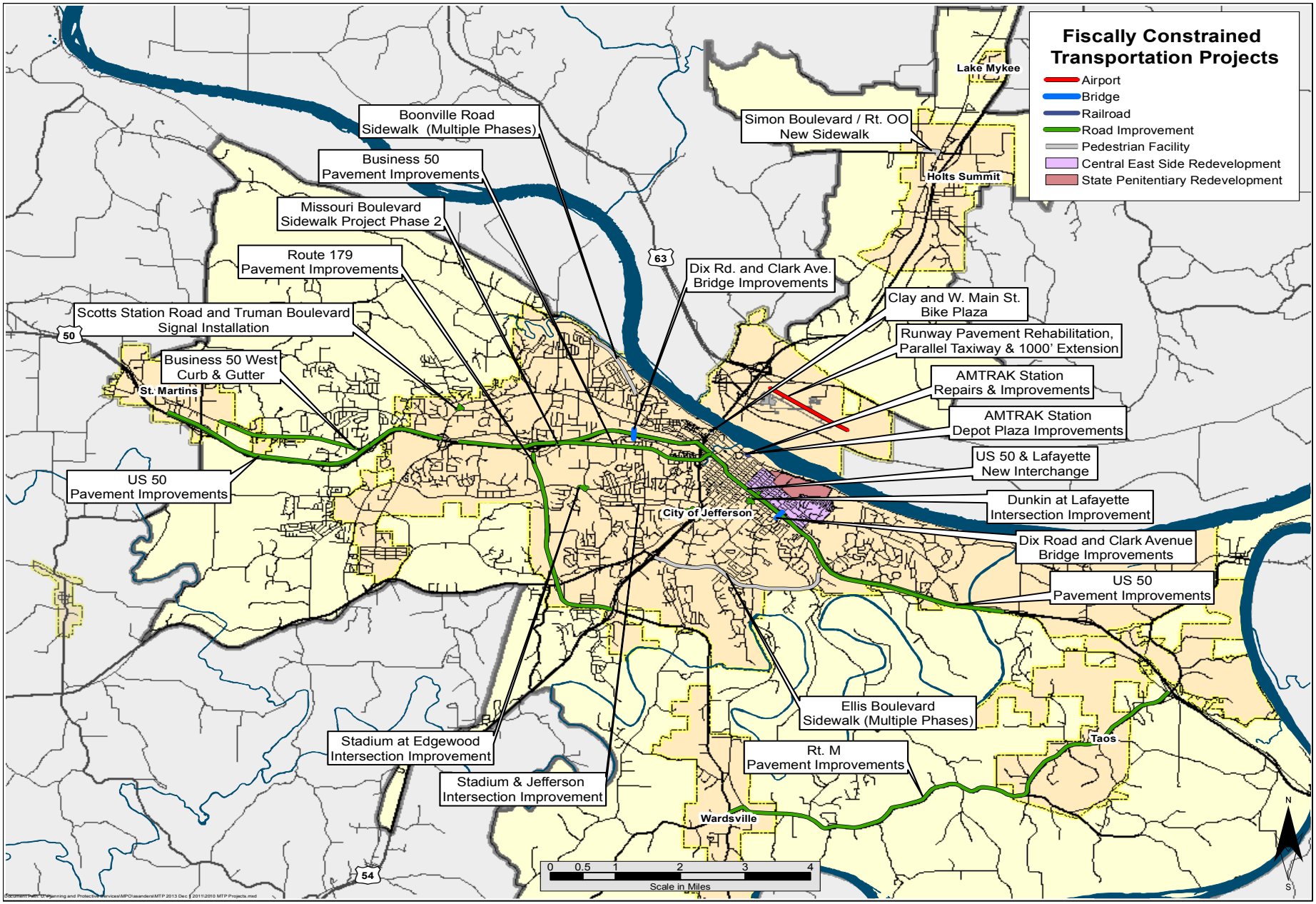
Redevelopment Projects	2013	2014	2015	2016	2017
Missouri State Penitentiary Redevelopment		$710,000	$944,000	$146,000	
Central East Side Redevelopment Projects - Lighting, Sidewalks, Alley, Signage		$3,075,000			
Greenway/Trail Projects					
Wears Greenway Trail					$268,000
Leslie Blvd. to Ellis Blvd.					$540,500
McKay Park Area Greenway Connection	$260,117				
Transportation Enhancement - Jefferson City Bike Plaza Clay and W. Main St. (2013-09)	$91,000				
Bridge Projects					
Dix Road and Clark Avenue Bridge Improvements	$2,000	$46,000	$1,522,000		
Rail Projects					
Passenger station repairs and improvements	$25,000	$25,000			
AMTRAK Depot Plaza Restoration TE (2013-10)	$591,825				
Airport					
Runway Pavement Rehabilitation	$1,600,000				
Runway 9-27 Parallel Taxiway& 1000' Extension	$3,000,000				
Transit					
JARC - 5316 (note: no inflation factor applied)	$58,125	$58,125	$58,125	$58,125	$58,125
New Freedom - 5317 (note: no inflation factor applied)	$42,000	$42,000	$42,000	$42,000	$42,000
Capital Assistance for Elderly Persons & Persons with Disabilities - 5310 (note: 3% inflation factor applied)	$25,163	$41,792	$43,046	$44,337	$45,668
Transit Facility Improvements-renovations roofing, weatherproofing, paint and door repairs	$50,000				
Power security entrance gate with card reader for CM/Transit Facility lower entrance					$60,000
(1) Service truck- replacement	$25,432				
(30) rotating information tubes (attached to bus stop sign poles in high traffic areas)		$10,500			
Computing equipment and Software (3 replacements)			$10,500		
(2) Paratransit Van/mini bus-replacement	$116,542				
Computing equipment and Software (2 replacements)					$7,000
(**4**) Paratransit Van/mini bus-replacement		$240,046			
(**1**) Paratransit Van/mini bus-replacement			$73,000		
(**1**) Paratransit Van/mini bus-replacement			$73,000		
(**2**) Paratransit Van/mini bus-replacement				$151,000	
(**5**) 12 yr. 35 ft. low floor coach (replacements) - 2017 delivery					$1,945,000
(**1**) Paratransit Van/mini bus-replacement	$58,271				
(**1**)Low floor minivan- replacement support vehicle				$40,000	
Transit Total	**$375,533**	**$392,463**	**$299,671**	**$335,462**	**$2,157,793**

Project	2018 est.	2019 est.	2020 est.	2021 est.	2022 est.
Sidewalk Projects					
Miscellaneous Emerging Sidewalks Projects, ADA Improvements & Contingency- Locations TBD	$260,955	$268,783	$276,847	$285,152	$293,707
Transit					
JARC - 5316 (note: no inflation factor applied)	$58,125	$58,125	$58,125	$58,125	$58,125
New Freedom - 5317 (note: no inflation factor applied)	$42,000	$42,000	$42,000	$42,000	$42,000
Capital Assistance for Elderly Persons & Persons with Disabilities - 5310 (note: 3% inflation factor applied)	$47,038	$48,449	$49,902	$51,399	$52,941
Emergency Generator Back UP Power Source			$75,000		
Transit Facility Improvements-renovations roofing, weatherproofing, paint and door repairs			$450,000		
(**5**) Paratransit Van/mini bus-replacement	$201,034				
(**3**) 12 yr. 30 ft. low floor coach (replacements) - 2018 delivery	$1,206,000				
(**4**) Paratransit Van/mini bus-replacement		$268,045			
(**2**) Paratransit Van/mini bus-replacement			$134,022		
Electronic fare box additions-ticket readers/issuers, probe, software and computer				$300,000	
Purchase and install an automated route information center					$30,000
(**2**) 12 yr. 30 ft. low floor coach (replacements) - 2021 delivery				$816,000	
(**1**) Paratransit Van/mini bus-replacement				$67,011	
Transit Total	**$1,554,197**	**$416,619**	**$809,049**	**$1,334,535**	**$183,066**

Project	2023 est.	2024 est.	2025 est.	2026 est.	2027 est.	2028 est.	2029 est.	2030 est.	2031-2035 est.
Sidewalk Projects									
Miscellaneous Emerging Sidewalks Projects, ADA Improvements & Contingency- Locations TBD	$302,518	$311,593	$320,941	$330,570	$340,487	$350,701	$361,222	$372,059	$2,034,571
Transit									
JARC - 5316 (note: no inflation factor applied)	$58,125	$58,125	$58,125	$58,125	$58,125	$58,125	$58,125	$58,125	$290,625
New Freedom - 5317 (note: no inflation factor applied)	$42,000	$42,000	$42,000	$42,000	$42,000	$42,000	$42,000	$42,000	$210,000
Capital Assistance for Elderly Persons & Persons with Disabilities - 5310 (note: 3% inflation factor applied)	$54,529	$56,165	$57,850	$59,586	$61,373	$63,215	$65,111	$67,064	$366,735
(**2**) 30 ft. low floor coach (replacements) - 2010 delivery	$986,481								$1,247,608
(**5**) 12 yr. 30 ft. low floor coach (replacements) - 2011 delivery		$978,169							
(**3**) 30 ft. low floor coach (replacements) - 2030 delivery								$1,410,000	
(**3**) Paratransit Van/mini bus-replacement	$201,033								
(**5**) 12 yr. 30 ft. low floor coach (replacements) - 2029 delivery							$2,645,200		
(**4**) Paratransit Van/mini bus-replacement		$268,044							
(**2**) Paratransit Van/mini bus-replacement			$134,022						
(**1**) Paratransit Van/mini bus-replacement					$67,011				
(3) 12 yr. 35 ft. low floor coach (replacements) - 2030 delivery								$1,640,000	
(2) Paratransit Van/mini bus-replacement						$201,033			
(4) Paratransit Vehicles - 2029							$268,044		
(2) Paratransit Vehicles - 2030								$134,022	
(1) Paratransit Vehicle - 2032									$67,011

Project	2023 est.	2024 est.	2025 est.	2026 est.	2027 est.	2028 est.	2029 est.	2030 est.	2031-2035 est.
(3) Paratransit Vehicles - 2033									$201,033
(4) Paratransit Vehicles - 2034									$268,044
(2) Paratransit Vehicles - 2035									$134,022
Transit Total	**$1,342,168**	**$1,402,503**	**$291,997**	**$159,711**	**$228,509**	**$364,373**	**$3,078,480**	**$3,351,211**	**$2,785,078**

Figure 10: Map of Fiscally Constrained Projects



Operations and Maintenance –Federal-Aid Highways/Streets

Infrastructure requires maintenance, roads and streets break down, and local governments are kept busy providing 24/7 services for the public.

For local entities such as cities and counties, an assortment of revenues from fees, taxes, and assessments provide the basis for transportation operations and maintenance as well as local match for capital improvements and programs within the CAMPO area.

For the years 2013 through 2035, the tables show the estimated total amounts of system level expenditures and revenue that is reasonably expected to be made available for Non-State Federal- Aid roadways.

The tables indicate five-year increments from 2013 out to 2017, at which point the remaining yearly operations & maintenance expenditures and revenue (from 2018 – 2035) are contained in bands that estimate a low range of 2% inflation rates for those years. The same procedure applies to the revenue rates.

Operations & Maintenance estimates are based on current Operations & Maintenance budgets from the municipalities and counties within CAMPO and an inflation factor.

A four year review of prior increases in the making of this plan showed that although annual budgets can fluctuate significantly, in recessionary periods the cost trend may become fairly flat, generally.

A 3% inflation factor estimated too high, and extended over time can become unreasonable.

Table 30: Annual Operations & Maintenance Expenditures and Revenues – Years 2013-2017

Operations & Maintenance 2013 - 2035	**2013 reported**	**2014 est.**	**2015 est.**	**2016 est.**	**2017 est.**
	annual	annual	annual	annual	annual
Jefferson City Operations & Maintenance expenditure	$3,531,937	$3,602,576	$3,674,627	$3,748,120	$3,823,082
Revenue	$3,531,937	$3,602,576	$3,674,627	$3,748,120	$3,823,082
Holts Summit Operations & Maintenance expenditure					
Local R&B tax or Trans. Tax	$35,613	$36,325	$37,052	$37,793	$38,549
Revenue	$35,613	$36,325	$37,052	$37,793	$38,549
ST. Martins Operations & Maintenance expenditure	$74,194	$75,678	$77,191	$78,735	$80,310
Revenue	$74,194	$75,678	$77,191	$78,735	$80,310
Cole County Road & Bridge expenditure	$7,983,895	$8,143,573	$8,306,444	$8,472,573	$8,642,025
Revenue	$7,983,895	$8,143,573	$8,306,444	$8,472,573	$8,642,025
MPO expenditure	$1,948,070	$1,987,032	$2,026,772	$2,067,308	$2,108,654
Callaway County Road & Bridge expenditure	$4,249,630	$4,334,623	$4,421,315	$4,509,741	$4,599,936
Callaway County revenue	$6,950,303	$7,089,309	$7,231,095	$7,375,717	$7,523,231
MPO expenditure	$509,956	$520,155	$530,558	$541,169	$551,992
MPO total operations & maintenance expenditure	$5,984,874	$6,104,571	$6,226,663	$6,351,196	$6,478,220
MPO proportional revenue	$5,984,874	$6,104,571	$6,226,663	$6,351,196	$6,478,220

Therefore, a compromise 2% inflation factor was used to estimate future costs and revenue.

Table 31: Operations & Maintenance Years 2018 through 2035

Operations & Maintenance 2013 - 2035	2018 est.	2019 est.	2020 est.	2021 est.	2022 est.	2023 - 2027 est.	2028-2035 est.
	annual	annual	annual	annual	annual	5 year	8 year
Jefferson City Operations & Maintenance expenditure	$3,899,544	$3,977,535	$4,057,085	$4,138,227	$4,220,992	$22,405,534	$40,799,334
Revenue	$3,899,544	$3,977,535	$4,057,085	$4,138,227	$4,220,992	$22,405,534	$40,799,334
Holts Summit Operations & Maintenance expenditure							
Local R&B tax or Trans. Tax	$39,320	$40,106	$40,908	$41,726	$42,561	$225,918	$411,385
Revenue	$39,320	$40,106	$40,908	$41,726	$42,561	$225,918	$411,385
ST. Martins Operations & Maintenance expenditure	$81,916	$83,554	$85,226	$86,930	$88,669	$470,664	$857,055
Revenue	$81,916	$83,554	$85,226	$86,930	$88,669	$470,664	$857,055
Cole County Road & Bridge expenditure	$8,814,865	$8,991,163	$9,170,986	$9,354,405	$9,541,494	$50,647,402	$92,226,333
Revenue	$8,814,865	$8,991,163	$9,170,986	$9,354,405	$9,541,494	$50,647,402	$92,226,333
MPO expenditure	$2,150,827	$2,193,844	$2,237,721	$2,282,475	$2,328,124	$12,357,966	$22,503,225
Callaway County Road & Bridge expenditure	$4,691,935	$4,785,774	$4,881,489	$4,979,119	$5,078,701	$26,958,360	$49,089,798
Callaway County revenue	$7,673,696	$7,827,170	$7,983,713	$8,143,388	$8,306,255	$44,090,609	$80,286,747
MPO expenditure	$563,032	$574,293	$585,779	$597,494	$609,444	$3,235,003	$5,890,776
MPO total operations & maintenance expenditure	$6,607,784	$6,739,940	$6,874,739	$7,012,234	$7,152,478	$37,966,221	$69,134,549
MPO proportional revenue	$6,607,784	$6,739,940	$6,874,739	$7,012,234	$7,152,478	$37,966,221	$69,134,549

Notes on the preceding tables:

City of Jefferson Maintenance and Operations:

Jefferson City Operations & Maintenance includes the overlay program and the streets budget. The overlay program expenditure is held constant while the streets budget for Operations & Maintenance includes a 2% inflation factor.

City of Holts Summit Maintenance and Operations: Holts Summit has a 3% inflation factor.

St. Martins Maintenance and Operations: St. Martins' Street Operation & Maintenance program contains a 2% inflation Factor (but excludes lighting).

Cole County Maintenance and Operations:

Revenue is based on the county annual budget with the sources being local property tax, state gas tax, motor vehicle sales tax.

Cole County includes their overlay program and an Operations & Maintenance budget with 2% inflation factor and an MPO road mile proportion of 23%.

Callaway County Maintenance and Operations:

Callaway County includes their overlay and paving with Operations & Maintenance, using a 2% inflation factor, and an MPO road mile proportion of 12%.

Callaway County Road & Bridge revenue is based on their published annual budget

All expenditures exclude storm water.

Years 2018 – 2030 columns show expenditures and revenues after the first 5 years for a 2% inflation factor for those years.

Table 32: JEFFTRAN Operating & Maintenance - Funding Schedule from 2013 through 2035

Funding	Funding Agency	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Local operating assistance- Local Taxes	City of Jefferson	$1,002,804	$1,044,618	$1,087,687	$1,132,048	$1,197,239
Passenger fares & other revenue		$381,000	$381,000	$381,000	$381,000	$381,000
State Operating Assistance	MoDOT	$10,000	$10,000	$10,000	$10,000	$10,000
Federal - FTA 5307	FTA	$650,000	$650,000	$650,000	$650,000	$650,000
Total		$2,043,804	$2,085,618	$2,128,687	$2,173,048	$2,238,239
Funding	Funding Agency	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Local operating assistance- Local Taxes	City of Jefferson	$1,264,387	$1,333,548	$1,404,785	$1,478,158	$1,553,733
Passenger fares & other revenue		$381,000	$381,000	$381,000	$381,000	$381,000
State Operating Assistance	MoDOT	$10,000	$10,000	$10,000	$10,000	$10,000
Federal - FTA 5307	FTA	$650,000	$650,000	$650,000	$650,000	$650,000
Total		$2,305,387	$2,374,548	$2,445,785	$2,519,158	$2,594,733
Funding	Funding Agency	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Local operating assistance- Local Taxes	City of Jefferson	$1,631,575	$1,711,752	$1,794,335	$1,879,395	$1,967,007
Passenger fares & other revenue		$381,000	$381,000	$381,000	$381,000	$381,000
State Operating Assistance	MoDOT	$10,000	$10,000	$10,000	$10,000	$10,000
Federal - FTA 5307	FTA	$650,000	$650,000	$650,000	$650,000	$650,000
Total		$2,672,575	$2,752,752	$2,835,335	$2,920,395	$3,008,007
Funding	Funding Agency	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Local operating assistance- Local Taxes	City of Jefferson	$2,057,247	$2,150,194	$2,245,930	$2,344,538	$2,446,104
Passenger fares & other revenue		$381,000	$381,000	$381,000	$381,000	$381,000
State Operating Assistance	MoDOT	$10,000	$10,000	$10,000	$10,000	$10,000
Federal - FTA 5307	FTA	$650,000	$650,000	$650,000	$650,000	$650,000
Total		$3,098,247	$3,191,194	$3,286,930	$3,385,538	$3,487,104
Funding	Funding Agency	FY 2033	FY 2034	FY 2035		
Local operating assistance- Local Taxes	City of Jefferson	$2,550,717	$2,658,469	$2,769,453		
Passenger fares & other revenue		$381,000	$381,000	$381,000		
State Operating Assistance	MoDOT	$10,000	$10,000	$10,000		
Federal - FTA 5307	FTA	$650,000	$650,000	$650,000		
Total		$3,591,717	$3,699,469	$3,810,453		

Note: Funding is based on a 3% annual increase in Federal FTA funding and a flat "State operating Assistance" amount, and a flat "other revenue" estimate.

Maintenance & Operation: State Roadways

Maintenance costs include MoDOT's salaries, fringe benefits, materials and equipment needed to deliver the roadway and bridge maintenance programs. This category includes basic maintenance activities like minor surface treatments such as: sealing, small concrete repairs and pothole patching; mowing right of way; snow removal; replacing signs; striping; repairing guardrail; and repairing traffic signals. Performing these activities requires employees; vehicles and other machinery; facilities to house equipment and materials such as salt, asphalt and fuel. In fiscal year 2013, MoDOT estimated $494,881,000 in maintenance expenditures.

MoDOT's annual cost to operate and maintain its system is approximately $6,400 per lane mile. MoDOT maintains approximately 349 miles of federal aid eligible roads in the CAMPO area.

MoDOT and local entities operation and maintenance costs were compounded annually at 1% inflation through the planning horizon.

Table 33: Estimated State Roadway Maintenance & Operation Costs through 2035

Year	Annual Cost	Year	Annual Cost	Year	Annual Cost	Year	Annual Cost
2013	$1,511,580	2019	$2,327,008	2025	$1,912,631	2031	$3,062,184
2014	$1,572,043	2020	$2,420,088	2026	$1,989,136	2032	$3,184,671
2015	$1,634,925	2021	$2,516,892	2027	$2,068,702	2033	$3,312,058
2016	$1,700,322	2022	$2,617,567	2028	$2,151,450	2034	$3,444,540
2017	$1,768,335	2023	$2,722,270	2029	$2,237,508	2035	$3,500,000
2018	$1,839,068	2024	$2,831,161	2030	$2,944,407		

The Public Transit Financial Plan - JEFFTRAN

Transit sources of revenue include local operating assistance (City of Jefferson transportation sales tax and General Fund), passenger fares and other revenue from contracts, state operating grant, and FTA 5307 funding.

Inflation factors for total operating costs and revenues are estimated by CAMPO at 4% per year from 2013 to 2035. For FTA 5307 funding, an estimated 4% per year inflation factor, based on the previous year is used. For capital investment projects (5309), a 3% inflation factor is used by JEFFTRAN for future capital investments. This inflation factor reflects year of expenditure dollars.[55]

The State Operating Grant is assumed to continue at the same level, through 2035, and Passenger fares and other revenues are also held constant. Local operating assistance provides the remaining variable. Also anticipated funding sources are the FTA 5316 Job Access and Reverse Commute program (JARC), the FTA 5317 New Freedom program, and the FTA 5310 Elderly and Persons with Disabilities Capital Assistance program, all administered through the MoDOT Multimodal Office.

Total planned costs and revenues from 2013 through 2035 for Transit Operation is $52,908,694 and is previously listed in the Operations and Maintenance Section.

Anticipated Capital investments through 2035 are $18,821,305. Sources of revenue include Local Capital Assistance (City of Jefferson transportation sales tax) FTA 5309 funding and local private donations.

Public Transit Funding

For the Jefferson City Urbanized area, the public transit provider is JEFFTRAN, providing public transit and paratransit services within the city limits of Jefferson, Missouri.

JEFFTRAN is an agency of the City of Jefferson Missouri, supported by city taxes, fares and contract

revenues, a state operating assistance grant through the Missouri DOT, and Federal Transit Administration operating and capital funding.

Public Transit Revenue Sources

Separating operating and capital expenses for both reporting and evaluation purposes is common in the transit industry. Jefferson City funds operating expenditures and capital expenditures separately, reflecting the fact that FTA has distinctly different programs and guidelines for capital and operating grant programs.

Operating Funds[56]

The primary sources of revenue for JEFFTRAN operations, both fixed route and paratransit, are local funds from city general revenue and federal funding from the FTA 5307 formula program. Operating expenses for transit are generally funded from the city's General Fund whereas capital projects are typically funded from the city's Capital Improvement Fund. The FTA 5307 program includes an apportionment amount based on a formula that takes into account the population and characteristics of the metropolitan area, as well as other factors.

JEFFTRAN receives operating funding for paratransit services through Medicaid reimbursements and the Non-Emergency Medical Transportation (NEMT) program that are used for local match. Payments from the State for the operation of the parking shuttles also represent a significant source of revenue for JEFFTRAN operations. Fares from passengers represent a relatively small portion of the total revenue compared with these external funding programs.

Capital Improvement Funding[57]

As mentioned previously, capital improvements are typically funded from the city's Capital Improvement Fund. These funds are used as local match for federal capital grants. Capital projects, such as bus acquisition and construction, can be funded through the FTA Section 5309 capital program.

MoDOT Transit Section[58]

Formula Operating Assistance - The FTA provides formula operating assistance to transit systems in urban areas of more than 50,000 Population. The Multimodal Operations Division includes the Transit Section that administers this program for urban cities under 200,000 populations.

The programs administered by Multimodal Operation Division include the following:

- MEHTAP
- FTA Section 5310
- FTA Section 5311
- FTA Section 5316
- FTA Section 5317, and
- FTA RTAP

MEHTAP Missouri Elderly and Handicapped Transportation Assistance Program

MEHTAP provides state financial assistance for public and nonprofit organizations offering transportation services to the elderly and disabled at below-cost rates.

FTA Section 5310 - Program Elderly and Persons with Disabilities Capital Assistance Program

The Transit Section purchases approximately 65 vehicles for about 35 grantees statewide each year using funds allocated to the State through the FTA Section 5310 program. The program is open to all areas of the State (rural, urbanized and urban) for nonprofit organizations and qualifying public entities.

FTA Section 5311 - Program Serving Non-Urbanized Areas

FTA provides funding for capital, operating and planning expenditures to transit systems serving non-urban areas. The MoDOT Transit Section receives the funds from FTA and administers the program for transit providers meeting the qualifying criteria for Section 5311.

FTA Section 5316 Program - Job Access and Reverse Commute Program

As of FY 2013, changes in MAP-21 include the end of JARC (Job Access and Reverse Commute) as a distinct program. JARC-type projects will be eligible activities under the rural (Section 5311) and urban (Section 5307) funding provisions.

In FY 2012, OATS, Inc. received Job Access Reverse Commute funding (Section 5316 Program) with matching local funds. One vehicle provides employment transportation in Jefferson City, 6 a.m. to 6 p.m., Monday through Friday to job training, daycare, and to those entering or have entered the workforce.

JARC activities are now different under MAP-21: "Job access and reverse commute project means: a transportation project to finance planning, capital, and operating costs that support the development and maintenance of transportation services designed to transport welfare recipients and eligible low-income individuals to and from jobs and activities related to their employment, including transportation projects that facilitate the provision of public transportation services from urbanized areas and rural areas to suburban employment locations." **Vanpool vehicles are also now included as permissible expenses**.[59]

FTA Section 5317 Program - New Freedom Program

As of FY 2013, changes in MAP-21 include the end of the New Freedom program as a distinct program. New Freedom type projects will be eligible activities under Section 5310 regarding seniors and people with disabilities.

The New Freedom formula program provides funding for new public transportation services, and alternatives to public transportation services, for people with disabilities, beyond those required by the Americans with Disabilities Act of 1990 (ADA).

FTA Rural Transportation Assistance Program[60]

The Rural Transit Assistance Program (49 U.S.C. 5311(b)(3)) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas.

Eligible Recipients are States, local governments, and providers of rural transit services.

Eligible activities are: support for non-urbanized transit activities in four categories: training, technical assistance, research, and related support services.

The RTAP formula first allocates $65,000 to each of the states and then distributes the balance according to non-urbanized population of the states. There is no Federal requirement for a local match.

Local Funding Sources: Non-Transit

Local governments have several sources for locally funded projects, that is, receiving no State or Federal funds, and for local matching funds for capital improvements or operations that do receive State or Federal funding.

Local sources include State Highway User Revenues, local sales taxes, franchise fees, license & permit fees, property taxes, and other revenue sources that provide significant resources for local general fund and specific funding of transportation. Not all taxes and fees go to transportation, so the local jurisdiction usually will identify a budget specifically for transportation purposes, such as capital improvements, Road and Bridge funds, transit operating subsidies, road and street budgets, along with operations and maintenance budgets.

State Highway User Revenues

Cities and counties within CAMPO planning area receive State Highway Revenue each year. These revenues come from Motor Fuel Tax, Vehicle Sales Tax, and Motor Vehicle Fees.

For Counties, the revenue distribution is based on the ratio of a county's rural road mileage to the total of county rural road mileage of the state, and the ratio of the County's assessed total county rural land valuation as portion of the total state rural land valuation.

For cities, a city's share is distributed according to population, based on the ratio of the city population to the population of all the cities in the state.

An estimated Highway User revenue stream for the life of the Metropolitan Transportation Plan, (2013 through 2035), with no inflation adjustment, totals $99,388,612. However, these highway user revenues may vary from year to year and may be used for any purpose. The following table shows the amount of user revenue distributed to the cities and counties for the CAMPO area, from FY 2011.

Table 34: State Highway User Receipts by Jurisdiction

	Annual Amount	2013-2035 Estimated Future Receipts
Cole County	$1,063,095	$24,451,185
Callaway County	$1,500,797	$34,518,331
Jefferson City	$1,521,968	$35,005,264
Holts Summit	$112,700	$2,592,100
Lake Mykee	$12,518	$287,914
St. Martins	$39,282	$903,486
Taos	$33,407	$768,361
Wardsville	$37,477	$861,971
Total	$4,321,244	$99,388,612

Note: future totals estimate continued annual amounts for each future year.

Jefferson City - Sales tax rates are 2% of taxable sales, which includes 1% for General Fund, 0.5% for Capital Improvement Funds, and 0.5% for the Parks Fund. Property tax rates are 55.61 cents per $100 assessed value, which includes 46 cents for General Fund and 9.53 cents for Fireman's Pension. Their overall sales tax rate is 7.725%, and includes a 4.225% State Sales Tax rate. The Commons of Hazel Hills TDD, Stone Ridge TDD, and US Hwy 50/63 & City View TDD all have an additional 1% sales tax for a total of 8.7225%.

Cole County –The county has a 1% sales tax, with .5% going to Capital Improvements, and .5% going to Law Enforcement. Of the .5% Capital Improvement sales tax, .27% was marked for the Road and Bridge fund. Cole County has a real property tax rate of $0.922, with $0.27 marked for the Road and Bridge fund

and $0.334 for general revenue. Their overall sales tax rate is 5.725% and includes a 4.225% State Sales Tax rate.

Callaway County – Callaway County has a 1.5% sales tax that includes .5% sales tax for the ambulance district for areas outside municipal boundaries. Their overall sales tax rate is 5.725% and includes a 4.225% State Sales Tax rate.

Holts Summit – For FY 2011, Holts Summit received Capital Improvement Taxes, Transportation Sales Tax, Road and Bridge Tax, Motor vehicle Sales Tax, and Vehicle Fee Increases. Expenditures included street repairs and maintenance, with a city sales tax of 3%. Their overall sales tax rate is 8.725% (which includes a 4.225% State Sales Tax rate, a 1% County Sales Tax and a .5% Ambulance District sales tax.)

St. Martins – City and County sales tax rates are 1% each for a total of 2%. The 1% city sales tax allows a local budget for Highways & Streets. Their overall sales tax rate is 6.725% and includes a 4.225% State Sales Tax rate.

Taos - City and County sales tax rates are 1% each for a total of 2%. Their overall sales tax rate is 6.725% and includes a 4.225% State Sales Tax rate. Property tax rates are 28.0 cents per $100 assessed valued.

Wardsville - City and County sales tax rates are 1% each for a total of 2%. Their overall sales tax rate is 6.725% and includes a 4.225% State Sales Tax rate.

Federal Funding Resources/Options for this Planning Period

Federal funding comes primarily from the MAP-21, the current Federal transportation act. These are the main source of funding that will be used in future project and program funding through FY 2014.

1) **National Highway Performance Program (NHPP)** - The purposes of the National Highway Performance Program (NHPP) are

   a) to provide support for the condition and performance of the National Highway System (NHS);

   b) to provide support for the construction of new facilities on the NHS; and

   c) to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

   Projects must be on an "eligible facility" which includes only those facilities located on the NHS, be identified in the STIP/TIP and be consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plan(s).

2) **Surface Transportation Program (STP)** - STP may be used by States and localities for projects to preserve or improve conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, transit capital projects and public bus terminals and facilities.

   Fifty percent of a State's STP funds are to be distributed to areas based on population (sub-allocated), with the remainder to be used in any area of the State. Consultation with rural planning organizations, if any, is required. Also, a portion of its STP funds (equal to 15 percent of the State's Highway Bridge Program apportionment) is to be set aside for bridges not on Federal-aid highways (off-system bridges), unless the Secretary determines the State has insufficient needs to justify this amount. A special rule is provided to allow a portion of funds reserved for rural areas to be spent on rural minor collectors, unless the Secretary determines this authority is being used excessively.

3) **Congestion Mitigation and Air Quality Improvement Program (CMAQ)** - CAMPO receives no CMAQ funding since the area meets the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) as well as former nonattainment areas that are now in compliance (maintenance areas).

4) **Highway Safety Improvement Program (HSIP)** - Safety throughout all transportation programs remains ONEDOT's number one priority. MAP-21 continues the successful HSIP, with average annual funding of $2.4 billion, including $220 million per year for the Rail-Highway Crossings program.

   Every State is required to develop a Strategic Highway Safety Plan (SHSP) that lays out strategies to address these key safety problems. The SHSP remains a statewide coordinated plan developed in cooperation with a broad range of multidisciplinary stakeholders.

   Safety Performance

   a) States will set targets for the number of serious injuries and fatalities and the number per vehicle mile of travel. If a State fails to make progress toward its safety targets, it will have to devote a certain portion of its formula obligation limitation to the safety program and submit an annual implementation plan on how the State will make progress to meet performance targets.
   b) High Risk Rural Roads, a State is required to obligate funds for this purpose if the fatality rate on such roads increases.
   c) The Secretary is required to carry out a study of High Risk Rural Road "best practices."
   d) States are required to incorporate strategies focused on older drivers and pedestrians if fatalities and injuries per capita for those groups increase.
   e) Railway-Highway Crossings (set-aside from HSIP)
   f) Metropolitan Planning

5) **Transportation Alternatives (TA) –**

TA is a new program, with funding derived from the NHPP, STP, HSIP, CMAQ and Metropolitan Planning programs, encompassing most activities funded under the Transportation Enhancements, Recreational Trails, and Safe Routes to School programs under SAFETEA-LU.

Fifty percent of TA funds are distributed to areas based on population (sub-allocated), similar to the STP. States and MPOs for urbanized areas with more than 200,000 people will conduct a competitive application process for use of the sub-allocated funds; eligible applicants include tribal governments, local governments, transit agencies, and school districts. Options are included to allow States flexibility in use of these funds.

This program is funded at a level equal to two percent of the total of all MAP-21 authorized Federal-aid highway and highway research funds, with the amount for each State set aside from the State's formula apportionments). Unless a State opts out, it must use a specified portion of its TA funds for recreational trails projects. Eligible activities include:

   a) Transportation alternatives (new definition incorporates many transportation enhancement activities and several new activities)
   b) Recreational trails program (program remains unchanged)
   c) Safe routes to schools program
   d) Planning, designing, or constructing roadways within the right-of way of former Interstate routes or other divided highways.

6) **Metropolitan Planning –** Continued funding from FHWA and FTA at an 80/20 formula.

New formula programs:

1. Construction of Ferry Boats and Ferry Terminal Facilities – replaces a similar discretionary program.
2. Federal Lands and Tribal Transportation Programs - creates a unified program for Federal lands transportation facilities, Federal lands access transportation facilities, and tribal transportation facilities.
3. Federal Lands Transportation Program - for projects that improve access within the Federal estate, such as national forests and national recreation areas, on infrastructure owned by the Federal government.
4. Federal Lands Access Program - for projects that improve access to the Federal estate on infrastructure owned by States and local governments.
5. Tribal Transportation Program - for projects that improve access to and within Tribal lands.

Continuing discretionary programs:

1. Projects of National and Regional Significance (PNRS)
2. On-the-Job Training Supportive Services
3. Disadvantaged Business Enterprise (DBE) Supportive Services
4. Highway Use Tax Evasion (Intergovernmental enforcement projects)
5. Work Zone Safety Grants

New Discretionary Program:

Tribal High Priority Projects (THPP) - a discretionary program modeled on an earlier program that was funded by set aside from the Indian Reservation Roads Program.

Set Asides under MAP 21:

Once each State's total Federal-aid apportionment is calculated, amounts are set aside for Metropolitan Planning and CMAQ via a calculation based on the relative size of the State's FY 2009 apportionment of those programs. The remainder is then divided among the rest of the formula programs as follows: NHPP (63.7%), STP (29.3%), and HSIP (7%). An amount is set aside from HSIP to fund the Rail-Highway Crossings program, and amounts are set aside proportionally from each State's NHPP, STP, HSIP, CMAQ, and Metropolitan Planning apportionments to fund the State's Transportation Alternatives program.

To enhance flexibility, a State may transfer up to 50% of any apportionment to another formula program, except no transfers are permitted of Metropolitan Planning funds or funds sub-allocated to areas based on population (STP and TA). [1509]

Generally Federal funds provide 80% of a capital improvement while the local entity provides the 20% local match.

Some Federal programs provide full funding, and other, competitive programs may prompt local project sponsors to provide more than 20%. The most prominent Federal programs for transportation for this area are identified in the next section of text, along with historic funding levels for CAMPO area.

TIFIA:

The Transportation Infrastructure Financing and Innovation Act (TIFIA) program provides Federal credit assistance to eligible surface transportation projects. MAP-21 dramatically increases funding available for TIFIA, authorizing $750 million in FY 2013 and $1 billion in FY 2014 to pay the subsidy cost (similar to a commercial bank's loan reserve requirement) of supporting Federal credit. A $1 billion TIFIA authorization will support about $10 billion in actual lending capacity. MAP-21 also calls for a number of significant program reforms, to include: a 10 percent set-aside for rural projects; an increase in the share of eligible project costs that TIFIA may support; and a rolling application process.

The Transportation Infrastructure Finance and Innovation Act of 1998 provides Federal credit assistance to major transportation investments of critical national importance, such as: intermodal facilities; border crossing infrastructure; highway trade corridors; and transit and passenger rail facilities with regional and national benefits. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital.[61]
The TIFIA credit program offers three distinct types of financial assistance, designed to address projects' varying requirements throughout their life cycles:

- Direct Federal loans to project sponsors offer flexible repayment terms and provide combined construction and permanent financing of capital costs.
- Loan guarantees provide full-faith-and-credit guarantees by the Federal government to institutional investors such as pension funds which make loans for projects.
- Standby lines of credit represent secondary sources of funding in the form of contingent Federal loans that may be drawn upon to supplement project revenues, if needed, during the first 10 years of project operations.

Note: The amount of Federal credit assistance may not exceed 33 percent of total project costs.

Urbanized Area Formula Grants (Section 5307 & Section 5340)[62]

This program provides grants to Urbanized Areas for public transportation capital, planning, job access and reverse commute projects, and operating expenses in certain circumstances. These funds constitute a core investment in the enhancement and revitalization of public transportation systems in the nation's urbanized areas, which depend on public transportation to improve mobility and reduce congestion.[63]
Eligible Recipients - FTA apportions funds to designated recipients, which then sub-allocate funds to state and local governmental authorities, including public transportation providers.

Enhanced Mobility of Seniors and Individuals With Disabilities (Section 5310)[64]

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services.[65]
Eligible Recipients - States (for all areas under 200,000 in population) and designated recipients.
Sub-recipients: states or local government authorities, private non-profit organizations, or operators of public transportation that receive a grant indirectly through a recipient.

Transit Asset Management (Section 5326)[66]
This regulation establishes new requirements for transit asset management by FTA's grantees as well as new reporting requirements to promote accountability. The goal of improved transit asset management is

to implement a strategic approach for assessing needs and prioritizing investments for bringing the nation's public transit systems into a state of good repair.

Eligible Recipients & Activities Not applicable; no grants are established under this section. This section establishes cross-cutting requirements across FTA's grant programs.

State Funding Options

Partnership Funding Programs: Programs that bring money to the project and does not have to be repaid.

Missouri Transportation Finance Corporation (MTFC) –

A non-profit lending corporation established to assist local transportation projects, and to administer the Statewide Transportation Assistance Revolving Fund (STAR Fund).

State Transportation Assistance Revolving Fund (STAR Fund) –

State Transportation Assistance Revolving Fund created to assist in the planning, acquisition, development and construction of transportation facilities other than highways in the state.

State Infrastructure Bank

A state infrastructure bank (SIB) is an investment fund at the state level with the ability to make loans and provide other forms of credit assistance to public and private entities to carry out transportation projects.

Partnership Debt-Financing Programs: Programs that bring money to the project and must be repaid.

Cost Sharing Program –

Projects where MoDOT commits a portion of project costs for projects not on the department's right-of-way and construction program, but that will benefit the state highway system.

Economic Development Program –

A method of funding projects that will significantly impact the economic development in a given area.

Transportation Corporations –

specialized, temporary, private, not-for-profit corporations that can be organized to plan, develop, and finance a particular transportation project. Transportation Corporations accounted for $10, 528,000 in funding for MO Rt. 179 from FY 2005 to 2007.

Transportation Development Districts –

a temporary, local, political subdivision that can be authorized by a vote of the public or all owners of real property affected by the district to plan, develop, finance, and levy taxes for a particular transportation project.

The following is a list of the current Transportation Corporations and Transportation Development Districts within the CAMPO region:

Identity and location	Government	Purpose
MO. 179 Extension Transportation Corp.	County of Cole	Highway
Stone Ridge TDD	Jefferson City	Unknown
US 50/63 and City View TDD	Jefferson City	Unknown
Commons of Hazel Hills TDD	Cole County	Highway

"Other innovative finance techniques" identified by MoDOT include:

- Congestion Pricing
- Private Activity Bonds
- Transportation Infrastructure Finance and Innovation Act (TIFIA) loan
- Grant Anticipation Revenue Vehicle (GARVEE)
- Grant Anticipation Notes GANS
- State Infrastructure Banks, and
- Toll Credits

Congestion Pricing

High performance highways involve the application of variable tolls on all lanes of existing toll ways and toll-free limited-access facilities to manage traffic flow. Tolls vary by level of demand, either on a fixed schedule by time of day or in real time to reflect changes in congestion levels, and are charged on congested highway segments to manage traffic flow. The concept also involves promotion of carpools and vanpools, park-and-ride facilities, and provision of express bus services, to provide travel alternatives to transportation system users.

Private Activity Bonds (PABs)

PABs allow the bonds to retain tax-exempt status despite a greater level of private involvement than is ordinarily allowed for these types of bonds. This allows public-private partnerships (PPPs) to obtain lower financing rates, eliminating one barrier to private sector participation in transportation finance.[67]

Grant Anticipation Revenue Vehicle (GARVEE) Bonds

"A GARVEE is a designation applied to a debt financing instrument that has a pledge of future Federal-aid for debt service and is authorized for Federal reimbursement of debt service and related financing costs. This financing mechanism generates up-front capital for major highway projects that the state may be unable to construct in the near term using traditional pay-as-you-go funding approaches. The issuer may be a state, political subdivision, or a public authority."68

Garvee bond issues are used in conjunction with advance construction to enable using Federal-aid funds for future debt service payments.

Grant Anticipation Notes (GANS)

Transit agencies also use similar mechanisms to borrow against future Federal-aid funds (Federal Transit Administration Title 49 grants) that are allocated by formula (Section 5307) or by project (Section 5309). These transit debt mechanisms are known as Grant Anticipation Notes (GANs), but are not officially termed GARVEEs because they utilize Federal-aid funding under Title 49, not Title 23, and do not include debt-related financing costs such as interest and issuance costs.

State Infrastructure Banks

Missouri Transportation Finance Corporation is the State Infrastructure Bank (SIB) for Missouri. AN SIB does the following:

- Loans (primary and subordinated)
- Standby lines of credit
- Debt service reserve financing
- Bond security
- Limited financial planning assistance
- Grant Anticipation Notes
- Gap financing
- Credit enhancements

Toll Credits

To the extent toll credits are available, a state may use up to 100 percent Federal funds to construct some projects, while using the state or local funds that would have been required to match Federal funds to construct other projects with 100 percent state or local funds. In effect, by using toll credits to substitute for the required non-Federal share on a Federal-aid project, up to 100 percent Federal funding may be used on a project.

MAP-21 makes changes to the statutory provisions governing tolling on highways that are constructed or improved with Federal funds (23 USC 129). One significant change is the removal of the requirement for an agreement to be executed with the U.S. DOT prior to tolling under the mainstream tolling programs (though such agreements will continue to be required under the toll pilot programs).

Other changes include the mainstreaming of tolling new Interstates and added lanes on existing Interstates, which was previously allowed only under the Interstate System Construction Toll Pilot Program and the Express Lanes Demonstration Program. The Value Pricing Pilot Program, which allows congestion pricing, is continued (but without discretionary grants), as is the Interstate System Reconstruction and Rehabilitation Pilot Program, which allows tolling of all lanes on an existing Interstate highway when required for reconstruction or rehabilitation. MAP-21 also requires that all Federal-aid highway toll facilities implement technologies or business practices that provide for the interoperability of electronic toll collection by October 1, 2016 (four years after the enactment of MAP-21's new tolling requirements).

Appendices

Appendix 1: Demographic and Area Characteristics

Year 2000 to 2010 Changes in the Land Area and Urban Area Population

Table 35: CAMPO 2010 Decennial Census Demographics by Jurisdiction

	Total Population	Metropolitan Planning Area Population		Adjusted Urban Area Population		Census Designated Urban Area Population	
		Persons	Percent	Persons	Percent	Persons	Percent
City of Jefferson (Cole County)	43,057	43,057	59.80%	43,057	72.08%	42,785	73.10%
St. Martins	1,140	1,140	1.58%	1,140	1.91%	1,063	1.82%
Taos	878	878	1.22%	0	0.00%	0	0.00%
Wardsville	1,506	1,506	2.09%	0	0.00%	0	0.00%
Unincorporated Cole County		18,507	25.71%	10,696	17.91%	10,048	17.17%
City of Jefferson (Callaway County)	22	22	0.03%	22	0.04%	0	0.00%
Holts Summit	3,247	3,247	4.51%	3,247	5.44%	3,108	5.31%
Lake Mykee	350	350	0.49%	350	0.59%	350	0.60%
Unincorporated Callaway County		3,290	4.57%	1,220	2.04%	1,179	2.01%
Totals		71,997	100.00%	59,732	100.00%	58,533	100.00%

Source: U.S. Bureau of the Census

Table 36: Racial Census of CAMPO Cities and Counties

	Total	One Race						Two or More Races	Hispanic
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other		
Callaway County	44,332	40,778	2,032	217	245	17	201	842	707
Cole County	75,990	64,137	8,512	242	966	46	667	1,420	1,795
City of Jefferson	43,079	33,581	7,263	141	755	25	333	959	1,103
City of Holts Summit	3,247	2,991	128	10	15	2	33	68	73
Village of Lake Mykee	350	339	2	0	3	0	0	6	5
City of St. Martins	1,140	1,087	13	3	8	0	11	18	14
City of Taos	878	867	0	4	2	0	0	5	9
City of Wardsville	1,506	1,471	9	5	4	5	0	12	7
CAMPO MPA	71,997	60,022	8,613	240	957	46	685	1,426	1,855

Source: U.S. Bureau of the Census

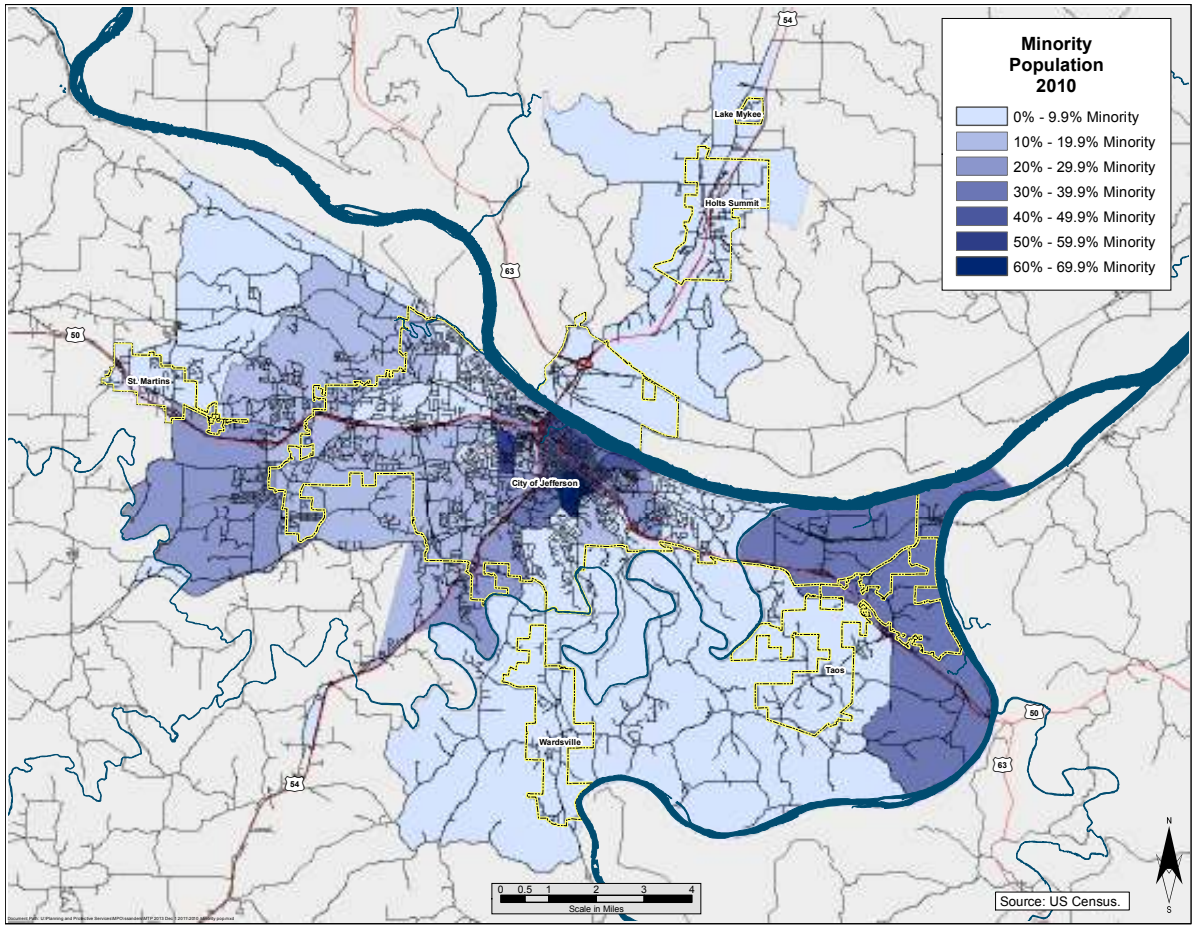
Demographics of Title VI and Environmental Justice

Minority Populations

For purposes of Title VI and Environmental Justice, who is considered to be a "Minority"? The U.S. DOT Order (5610.2) on Environmental Justice defines "Minority" and provides clear definitions of the four (4) minority groups addressed by the Executive Order.69 These groups are:

- Black (a person having origins in any of the black racial groups of Africa).
- Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).
- Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands).
- American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Table 37: Distribution of Minority Populations by Census Block Group.



Income

An estimate based on the U.S. Census Bureau, 2006-2010 American Community Survey indicates 7,605 persons (10.6%) in the CAMPO Planning Area were below poverty income level in past 12 months, in 2010.

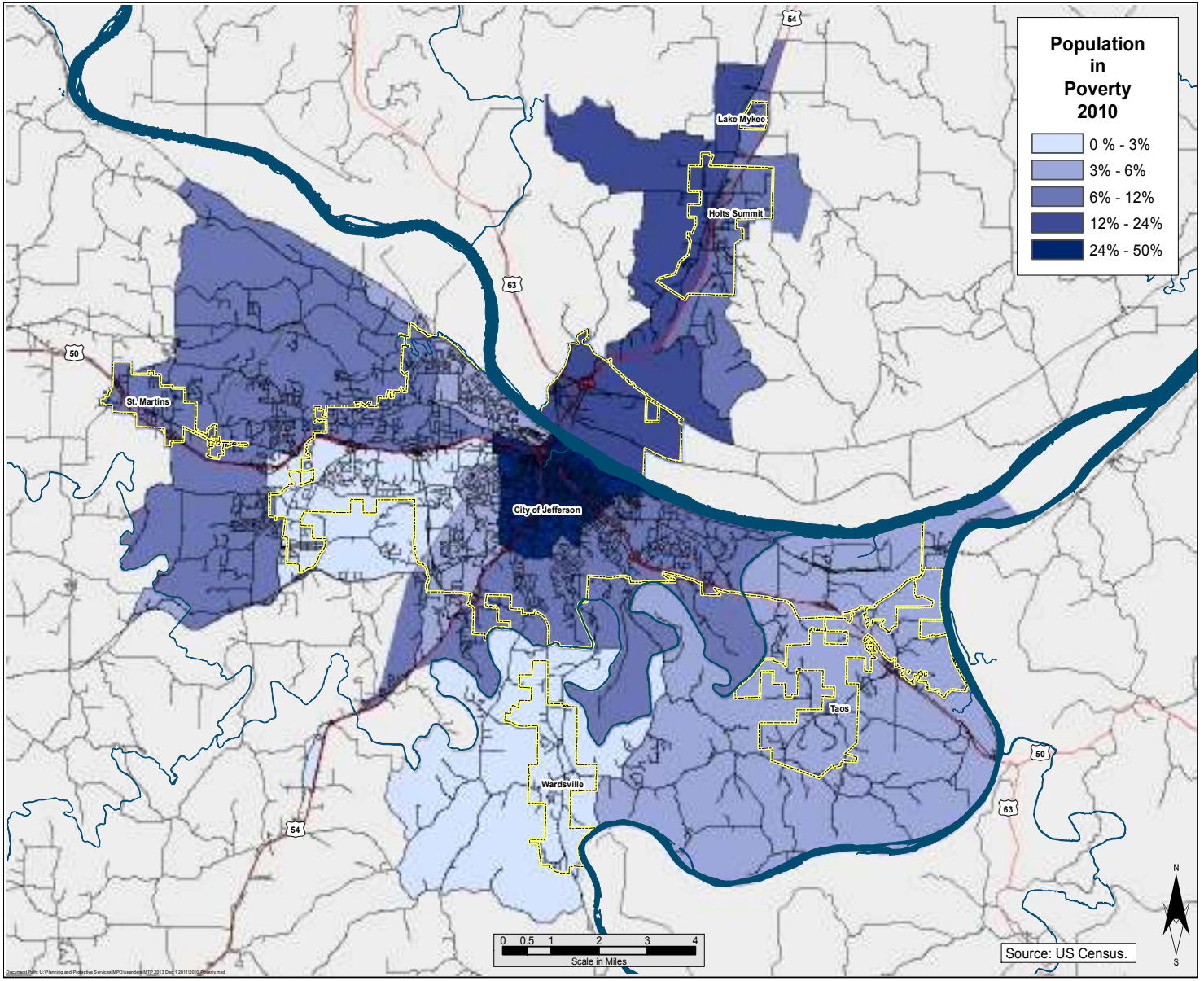
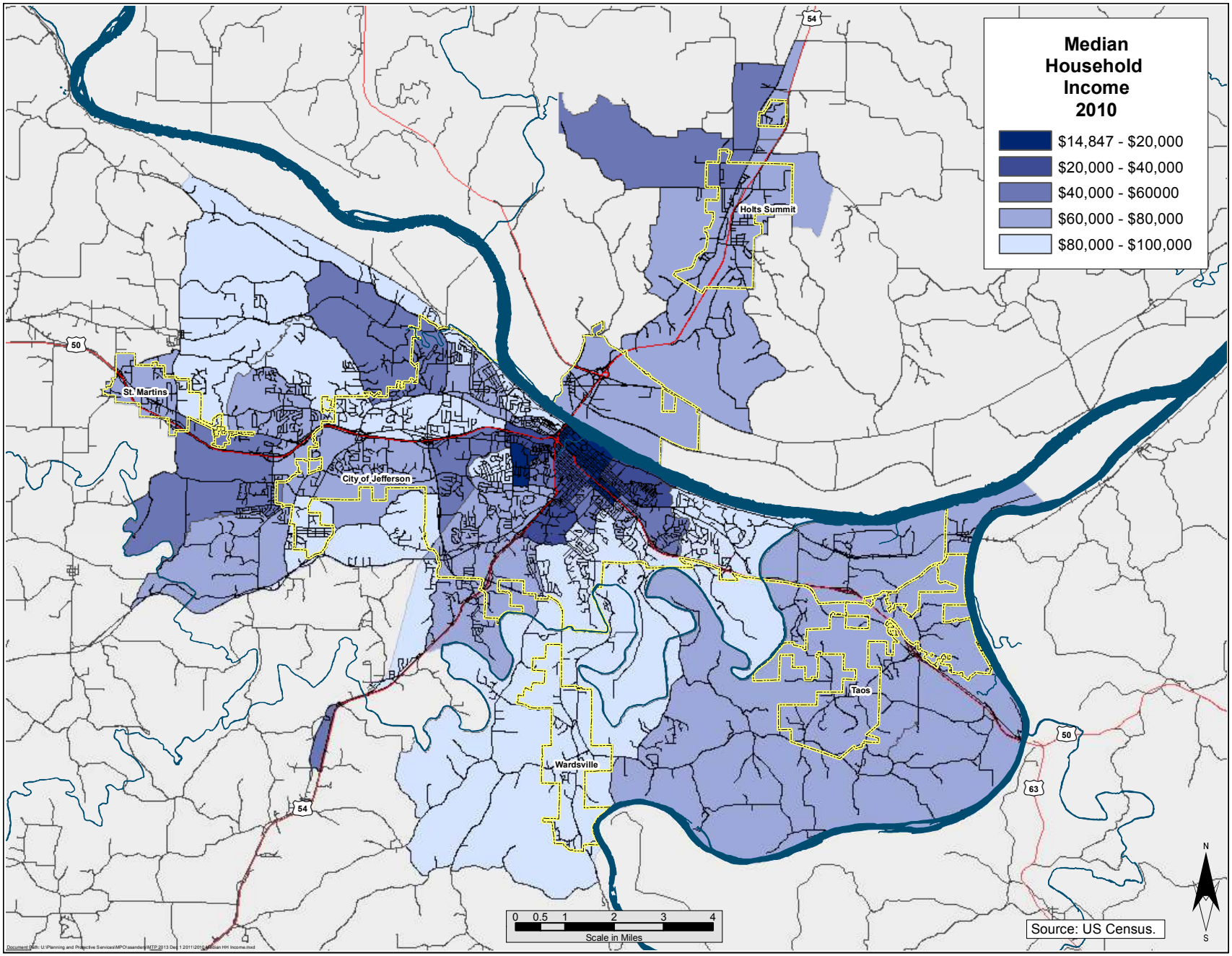


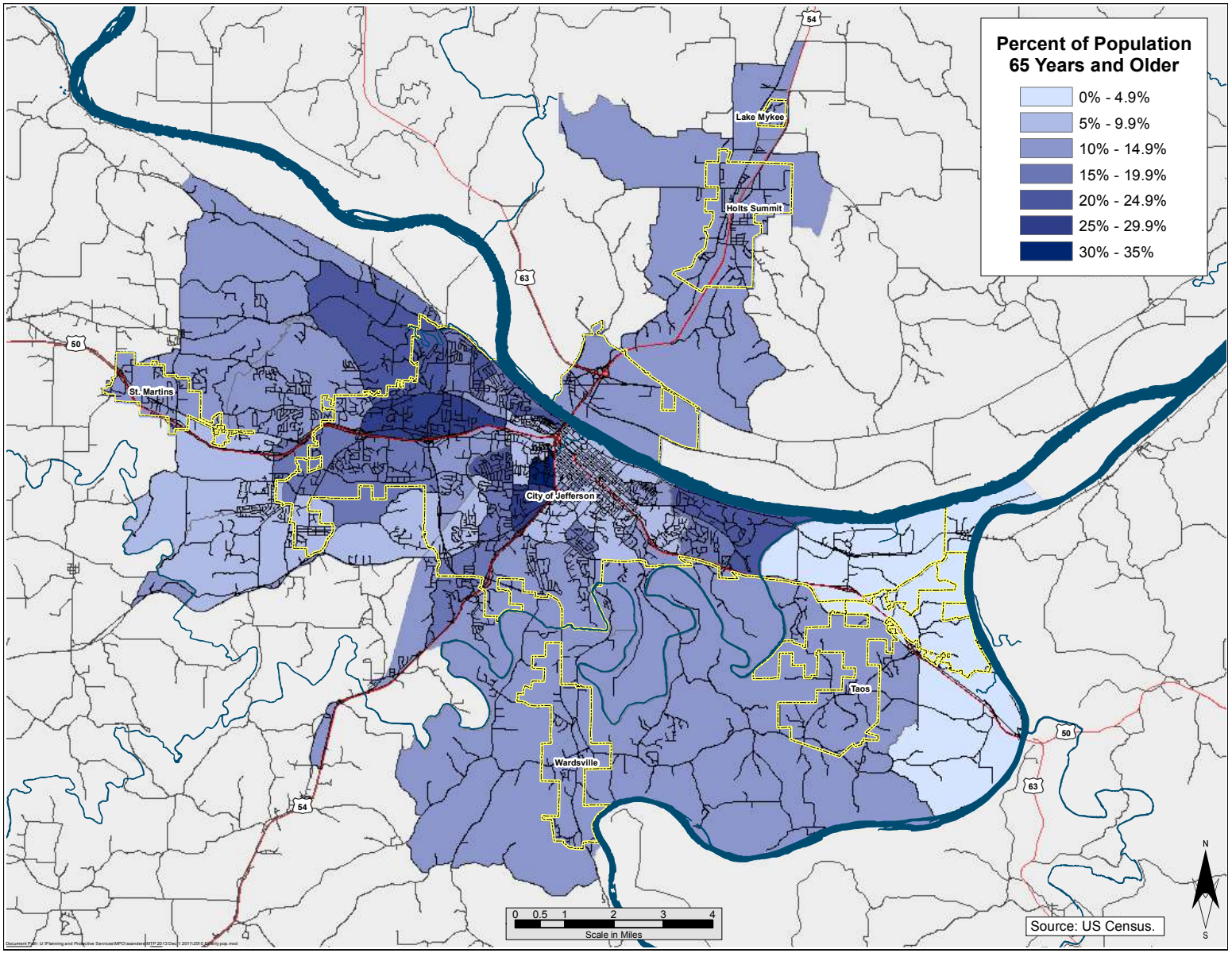
Figure 11: Map of MPA Population in Poverty

Figure 12: Map of Median Household Income by Census Block Group



Elderly Populations - An estimate based on the U.S. Census Bureau, 2006-2010 American Community Survey indicates 8,836 persons (12.3%) in the CAMPO Planning Area were age 65 or older in 2010.

Figure 13: Map of Elderly Population Location by Census Block Group



Disabled Population

Table 38: Disabled Population by County

	Callaway County				Cole County			
	With a disability		Percent with a disability		With a disability		Percent with a disability	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total civilian non-institutionalized population	5,968	+/-685	14.2%	+/-1.6	9,675	+/-834	13.2%	+/-1.2
Population under 5 years	28	+/-34	1.1%	+/-1.4	21	+/-24	0.4%	+/-0.5
With a hearing difficulty	28	+/-34	1.1%	+/-1.4	14	+/-22	0.3%	+/-0.5
With a vision difficulty	13	+/-23	0.5%	+/-0.9	7	+/-11	0.1%	+/-0.2
Population 5 to 17 years	556	+/-221	7.9%	+/-3.1	704	+/-259	5.4%	+/-2.0
With a hearing difficulty	56	+/-62	0.8%	+/-0.9	51	+/-47	0.4%	+/-0.4
With a vision difficulty	91	+/-113	1.3%	+/-1.6	71	+/-73	0.5%	+/-0.6
With a cognitive difficulty	455	+/-210	6.4%	+/-3.0	403	+/-140	3.1%	+/-1.1
With an ambulatory difficulty	165	+/-129	2.3%	+/-1.8	160	+/-167	1.2%	+/-1.3
With a self-care difficulty	140	+/-122	2.0%	+/-1.7	76	+/-63	0.6%	+/-0.5
Population 18 to 64 years	3,292	+/-528	12.1%	+/-1.9	5,590	+/-749	12.1%	+/-1.6
With a hearing difficulty	907	+/-278	3.3%	+/-1.0	1,307	+/-343	2.8%	+/-0.7
With a vision difficulty	334	+/-147	1.2%	+/-0.5	1,321	+/-360	2.9%	+/-0.8
With a cognitive difficulty	1,222	+/-380	4.5%	+/-1.4	2,513	+/-443	5.4%	+/-1.0
With an ambulatory difficulty	1,802	+/-399	6.6%	+/-1.5	2,862	+/-531	6.2%	+/-1.2
With a self-care difficulty	450	+/-173	1.7%	+/-0.6	699	+/-251	1.5%	+/-0.5
With an independent living difficulty	913	+/-262	3.4%	+/-1.0	1,761	+/-395	3.8%	+/-0.9
Population 65 years and over	2,092	+/-363	40.2%	+/-6.4	3,360	+/-403	37.4%	+/-4.3
With a hearing difficulty	1,012	+/-290	19.5%	+/-5.4	1,479	+/-278	16.5%	+/-3.2
With a vision difficulty	282	+/-151	5.4%	+/-2.9	605	+/-253	6.7%	+/-2.7
With a cognitive difficulty	396	+/-228	7.6%	+/-4.5	728	+/-219	8.1%	+/-2.4
With an ambulatory difficulty	1,199	+/-307	23.1%	+/-5.6	2,070	+/-304	23.0%	+/-3.3
With a self-care difficulty	308	+/-159	5.9%	+/-3.1	517	+/-150	5.8%	+/-1.7
With an independent living difficulty	738	+/-236	14.2%	+/-4.5	1,264	+/-255	14.1%	+/-2.8

Source: U.S. Bureau of the Census

Table 39: Cole and Callaway County Disabled Populations

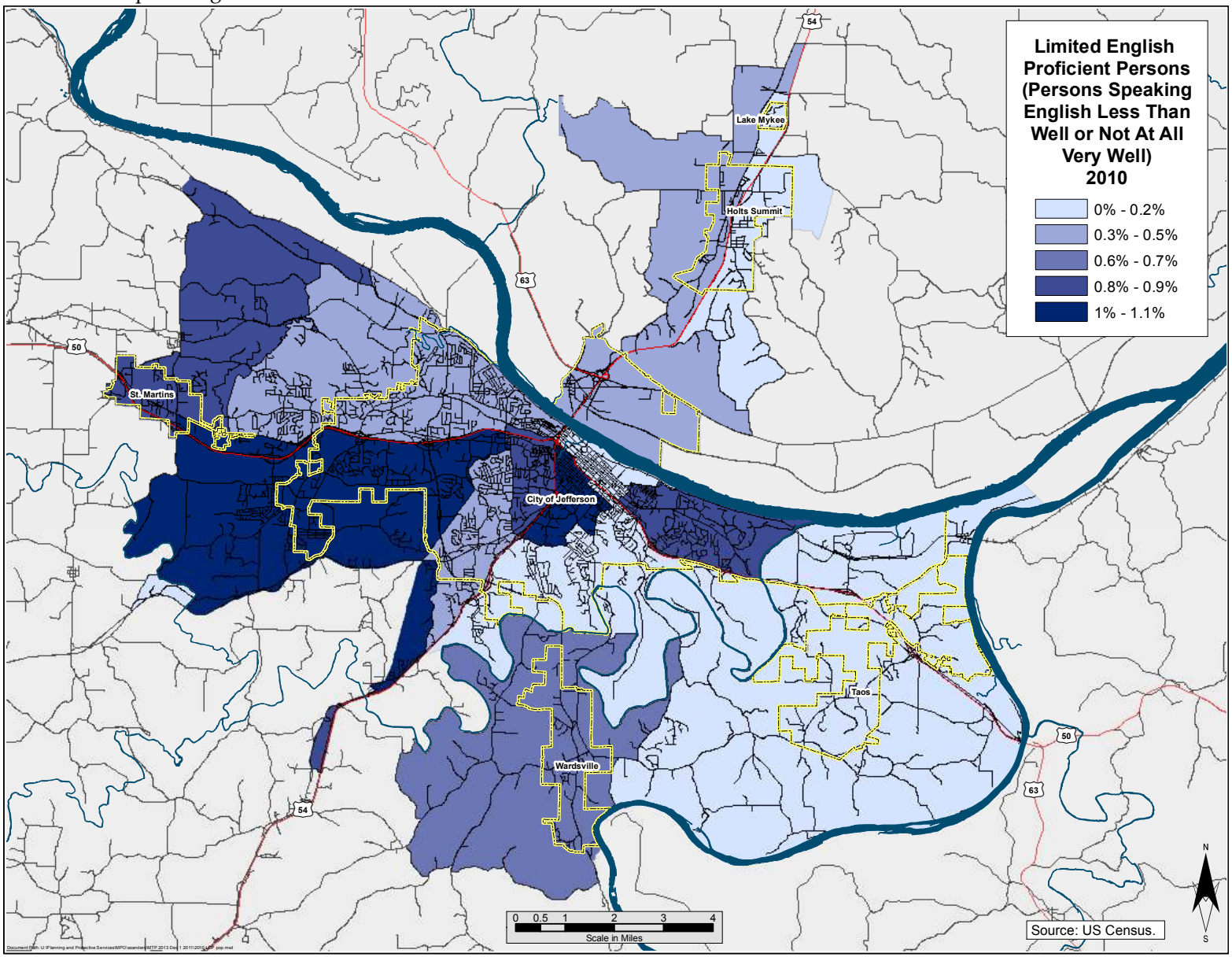
	Callaway County	Cole County
Disability status	4.4%	4.2%
Hearing difficulty	3.0%	3.2%
Vision difficulty	3.2%	3.5%
Cognitive difficulty	3.4%	3.5%
Ambulatory difficulty	3.5%	3.7%
Self-care difficulty	3.6%	3.6%
Independent living difficulty	3.6%	2.7%

Source: U.S Bureau of the Census

Limited English Proficient Population

An estimate based on the U.S. Census Bureau, 2006-2010 American Community Survey indicates 381 persons (0.53%), older than 5 years of age, in the CAMPO Planning Area could not speak English better than 'less than well or not at all in 2010.

Figure 14: Map of Population with Limited English proficiency by Block Group



Employment

Table 40: MPA Employment Profile for 2010

Total Primary Jobs	Count	Share
Total Primary Jobs	52,097	100.00%
Jobs by Worker Age	**Count**	**Share**
Age 29 or younger	10,636	20.40%
Age 30 to 54	30,992	59.50%
Age 55 or older	10,469	20.10%
Jobs by Earnings	**Count**	**Share**
$1,250 per month or less	8,732	16.80%
$1,251 to $3,333 per month	25,818	49.60%
More than $3,333 per month	17,547	33.70%
Jobs by NAICS Industry Sector	**Count**	**Share**
Agriculture, Forestry, Fishing and Hunting	181	0.30%
Mining, Quarrying, and Oil and Gas Extraction	91	0.20%
Utilities	270	0.50%
Construction	2,407	4.60%
Manufacturing	3,427	6.60%
Wholesale Trade	1,147	2.20%
Retail Trade	4,850	9.30%
Transportation and Warehousing	524	1.00%
Information	936	1.80%
Finance and Insurance	2,034	3.90%
Real Estate and Rental and Leasing	287	0.60%
Professional, Scientific, and Technical Services	1,721	3.30%
Management of Companies and Enterprises	1,091	2.10%
Administration & Support, Waste Management and Remediation	1,928	3.70%
Educational Services	1,920	3.70%
Health Care and Social Assistance	4,276	8.20%
Arts, Entertainment, and Recreation	758	1.50%
Accommodation and Food Services	2,792	5.40%
Other Services (excluding Public Administration)	1,654	3.20%
Public Administration	19,803	38.00%
Jobs by Worker Race	**Count**	**Share**
White Alone	48,444	93.00%
Black or African American Alone	2,496	4.80%
American Indian or Alaska Native Alone	179	0.30%
Asian Alone	583	1.10%
Native Hawaiian or Other Pacific Islander Alone	20	0.00%
Two or More Race Groups	375	0.70%

Table 41: Employment by Education

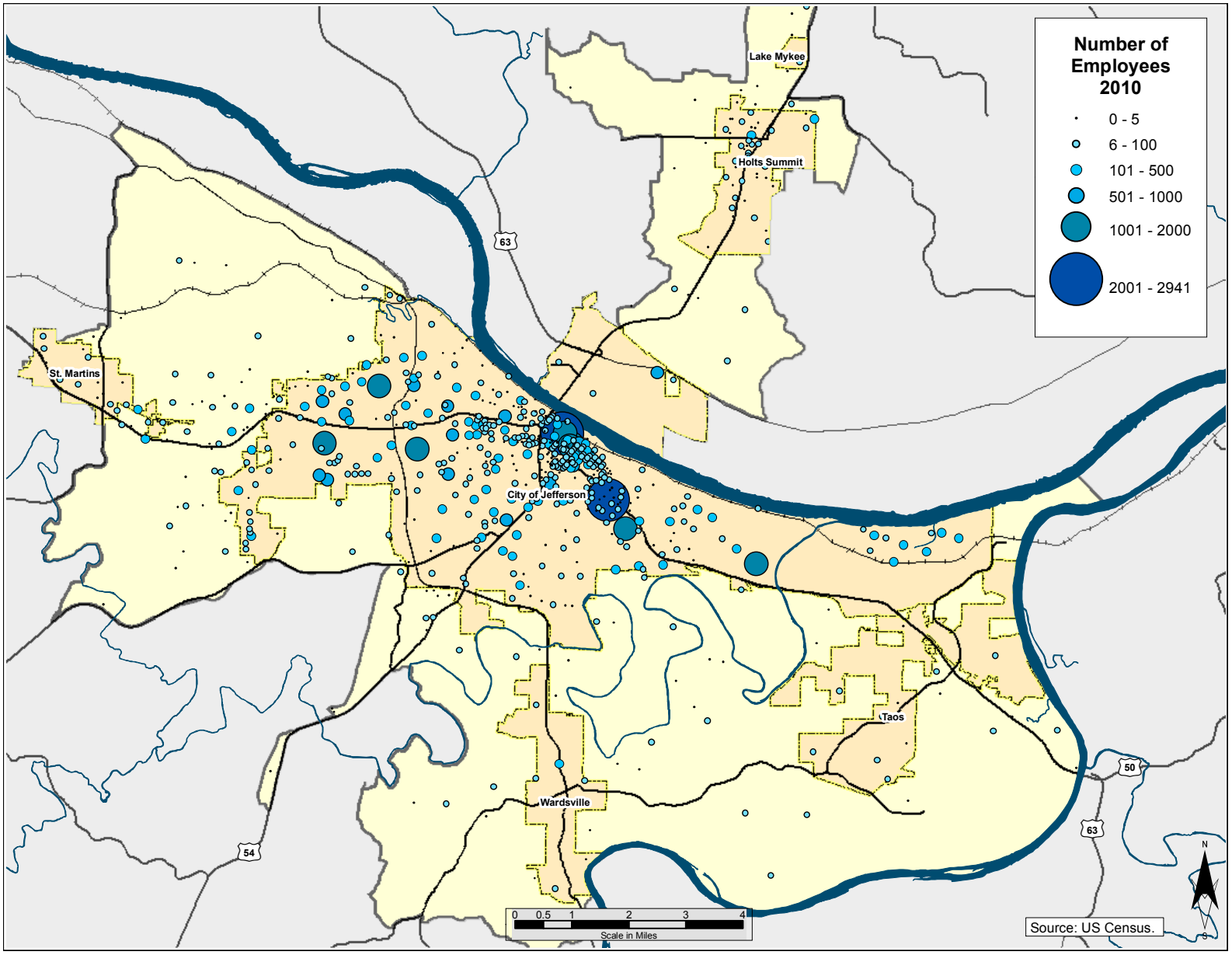
Jobs by Worker Educational Attainment	**Count**	**Share**
Less than high school	3,262	6.30%
High school or equivalent, no college	13,859	26.60%
Some college or Associate degree	14,195	27.20%
Bachelor's degree or advanced degree	10,145	19.50%
Educational attainment not available (workers aged 29 or younger)	10,636	20.40%
Jobs by Worker Gender	**Count**	**Share**
Male	26,138	50.20%
Female	25,959	49.80%

Source: U.S. Census Bureau, On The Map Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2010).

Table 42: Projected Employment from 2010 to 2035

	2010	**2020**	**Change from 2010 to 2020**	**2035**	**Change from 2020 to 2035**
Households	31,052	33,563	2,511	37,098	3,535
Employees:					
Retail	4,670	5,348	678	6,553	1,205
Office/Service	24,414	25,064	650	26,134	1,070
Education	2,678	2,796	118	2,999	203
Medical	4,905	5,210	305	5,710	500
Industrial	4,091	4,486	395	5,176	690
Warehouse	1,869	1,952	83	2,112	160
Entertain/Recreation	578	598	20	648	50
Retail – High Density	3,275	3,475	200	3,575	100
Other	3,533	3,553	20	3,623	70
Total Employees	**50,013**	**52,482**	**2,469**	**56,530**	**4,048**

Figure 15: Dot Density Map of MPA Employment



Appendix 2: MPA Illustrative Needs List -

Illustrative needs/projects are those which may be given future consideration in the event that additional future funding sources are subsequently defined to be "reasonably available." At that time illustrative projects can move forward into the Transportation Improvement Program. Illustrative Needs /Projects are listed in the following tables.

Ongoing planning, scoping and design activities through MoDOT are also categorized as Illustrative needs

Improvements to the transportation system that adds vehicle capacity, adds new roads, increases safety, increases security, and preserves existing roads are also identified as illustrative needs within the CAMPO MPA. Planning, scoping, and design activities by MoDOT and local jurisdictions required for these needs are also illustrative needs.

2013 Illustrative Needs List	Location	Benefits	Benefits
Corridor Improvements			
MO Rte. 179	Edgewood Dr. to Sue Dr.	Capacity	Safety
Scott Station Rd.	Truman Blvd. to Ten Mile Dr.	Capacity	Safety
Truman Blvd.	Constitution to Missouri Blvd.	Capacity	Safety
Country Club Dr.	Truman Blvd. to Rainbow Dr.	Capacity	Safety
Dix Rd.	Missouri Blvd. to W. Main St.	Capacity	Safety
Monroe St.	Atchison to Tanner Bridge Rd.	Capacity	Safety
S. Country Club Dr.	Missouri Blvd. to W. Edgewood Dr.	Capacity	Safety
Whitton Expressway	US 54 to Eastland Dr.	Capacity	Safety
US 54	Ellis Blvd. to Jefferson St.	Capacity	Safety
Stadium Blvd.	Jefferson St. to Adams St.	Capacity	Safety
Ellis Blvd.	Christy Dr. to Mo Rt. C	Capacity	Safety
Ellis Blvd.	Lorenzo Greene Dr. to Green Berry Rd.	Capacity	Safety
US 50/63	Clark Ave. roundabout N. and S.	Capacity	Safety
Eastland Dr.	Elm St. to Bald Hill Rd.	Capacity	Safety
MO Rte. C	MO Rte. 179 to Rumsey Ln.	Capacity	Safety
MO Rte. B	Lorenzo Greene Dr. to MO Rte. M Wardsville	Capacity	Safety
Edgewood Dr.	MO Rte. 179 to Stadium Blvd.	Capacity	Safety
S. Summit Dr./ US 54 Ramps	US/54 to S. Summit Dr.	Capacity	Safety
US 50.63/54 Trilevel	All directions	Capacity	Safety
US 54 third travel lane	Missouri R. Bridge to US 63 E. and W. and Rte. 95	Capacity	Safety
US 50/63	Shamrock Rd. to Liberty Ln.	Capacity	Safety
Missouri Blvd. crossings	Rt. 179 to US/50		Safety
Liberty Dr. & Shamrock Rd.			Safety
Bike Pedestrian Improvements			
Bike Loop	City wide	Mobility	
Pedestrian Crossing Missouri Blvd.	Stadium Blvd. to Dix Road/Southwest Blvd.		Safety
Sidewalk Plan Implementation	City-wide	Mobility	Safety
Boonville Rd.		Mobility	Safety
Southwest Blvd.		Mobility	Safety
Ellis Blvd.		Mobility	Safety
Seven Hills Rd.		Mobility	Safety
Eastland Dr.		Mobility	Safety
Vieth Dr.		Mobility	Safety

2013 Illustrative Needs List	Location	Benefits	Benefits
Missouri Blvd. (west)		Mobility	Safety
Stadium Blvd.	W. Edgewood to Myrtle Ave.	Mobility	Safety
Dix Rd.	Missouri Blvd. to Industrial Dr.	Mobility	Safety
W. Main St.		Mobility	Safety
Belair	W. Main St to 430' S. of Ker-Mac	Mobility	Safety
Green Berry Rd./ Moreau Dr.		Mobility	Safety
Greenways/Trails			
JCMG	Medical Center to Satinwood		Recreational Health
Frog Hollow Branch	Frog Hollow Bridge to W. Edgewood		Recreational Health
Frog Hollow Branch	Frog Hollow Bridge to Mission Dr.		Recreational Health
Frog Hollow Branch	Edgewood DR. to Missions Dr.		Recreational Health
Frog Hollow Branch	Dunklin Trailhead to McCarty St.		Recreational Health
Frog Hollow Branch	McCarty St. to W. Main St.		Recreational Health
East Branch	Aurora Park to Hough Parks		Recreational Health
Lewis & Clark	State Office Building to Hamilton-Dulle Tower Area		Recreational Health
Boggs Creek Branch	Riverside Park to E. McCarty St.		Recreational Health
Congested Intersections	V/C >= 100% by 2030		
Jefferson City	Stadium Blvd. @ Southwest Blvd.	Connectivity	Safety
Jefferson City	Stadium Blvd. @ W. Edgewood Dr.	Connectivity	Safety
Holts Summit	Old US 54 @ Summit Dr.	Connectivity	Safety
New Roads or Extensions			
Connector	Eastwood to Skyview	Connectivity	local
Connector	E. Miller to Eastland Dr.	Connectivity	local
Connector	Schotthill Woods Dr. to Schotts Rd.	Connectivity	local
Militia Dr. Extension	US 50/63 to Liberty Rd.	Connectivity	local
E. Miller St.	Vetter Ln. to Eastland Dr.	Connectivity	local
Skyview DR.	Woodlander RD. to E. McCarty St.	Connectivity	local
Schott Rd.	Schotthill Woods Rd. to E. McCarty St.	Connectivity	local
Wildwood extension	RockRidge Rd. to W. Edgewood Dr.	Connectivity	Collector
Stoneridge Extension	?	Connectivity	local
Sherwood Dr. Extension	Terminus to W. Edgewood Dr.	Connectivity	local
Graystone DR.	Bannister Dr. to Sherwood Dr.	Connectivity	Local
Weatherhill Rd.	Terminus to W. Edgewood Dr.	Connectivity	local
Emerald Ln.	Diamond Ridge Rd to Weatherhill Rd.	Connectivity	local
Mission Dr.	MO Rte. 179 to Rock Ridge Rd.	Connectivity	local
New Southwest Arterial Corridor	US 50 to US54	Connectivity	Bypass
New Southeast Arterial Corridor	US 54 to US54/63	Connectivity	Bypass
New Northwest Arterial Corridor	Rainbow Dr. to MO Rt. 179	Connectivity	Bypass
I-54 Designation	MPA area		
Airport/Aviation			
Air Traffic Control Tower			
Rehab Runway 12-30			
Runway lighting on 12-30 and 9-27			
Construct Runway full length parallel taxiway "B"			
Capital Equipment - MU Meter			
Upgrade Terminal Bldg.			
Transit			

2013 Illustrative Needs List	Location	Benefits	Benefits
Multimodal Transit Center	undetermined		
Expand service area		Mobility	
Expand service hours and days (Saturday)		Mobility	
Increase frequency		Mobility	
Expand service for people with disabilities		Mobility	
Parking Improvements			
Jefferson City - increase	Downtown	Economic	
Shepard Hills Rd.	US 50/63	Safety	
County Park Rd. Curb& Gutter		Safety	
Loesch Rd.	Zion Rd. to Heritage Hwy.	Safety	
Widen shoulders on Route T	intersection Route T and Bus 50 to North to Henwick Lane		Safety
intersection improvements to Route T (possible round about or other)	Rte. D to Bus 50		Safety
Curb, gutter and sidewalks along Business 50 West	Henwick Lane on the west end to Rainbow Drive on the east end of Business 50		Safety
Sidewalk on Verdant Lane	Business 50 to the City Park		Safety
Curb, gutter and sidewalks	Rainbow Drive to Pioneer Trail Drive along Business 50		Safety
Rainbow Drive upgrade		Capacity	Safety
Business 50 resurfacing			Safety
E. Simon Blvd. /US54 Roundabout/Intersection Improvement	E. Simon Blvd. overpass to US54 NB Exit & Entrance		Safety
S. Summit Dr. Overpass	US54 to S. Summit Dr.		Safety
US54 Pedestrian Bridge	Simon Blvd. to Center St.		Safety
Karen Dr. Sidewalk	Simon Blvd. to Center St.		Safety
E. Simon Blvd. Overpass Shoulder Improvements	Rt. OO to US54 Overpass		Safety
Center Street Overpass Shoulder Improvements	Center St. to US54 Overpass		Safety
Center Street/US54 Roundabout	US54 N. to E. Center St.		Safety
Center Street Surface Improvement	Center St.		Safety
Center St. /Halifax Intersection Improvements	Halifax Rd. to Center St.		Safety
Holts Summit	Hibernia Station Trail to Greenway Park Trail		Recreational Health
Cole County			
Rock Ridge Road Curb and Gutter	Route C to Route C		
Loesch Road Gravel Road Upgrade	Zion Road to Moreau River		
Moreau Ridge Road Gravel Road Upgrade	Monticello Road to end of road		
Rainbow Drive Curb and Gutter	End of C&G to Binder Lake		
Wildwood Drive Extension	W. Edgewood to Rock Ridge		
Mission Drive Extension	Hwy 179 to Frog Hollow		
Militia Drive Extension	Hwy 50 to Liberty Road		
Scott Station Road Curb and Gutter	City Limits to approximately 910 Scott Station Road		
Route 179 Connection to Hwy 50 East	From Route B to Militia Drive		

2013 Illustrative Needs List	Location	Benefits	Benefits
Freight related improvements			
Need 2nd River Crossing - Second Bridge on 54/63 (northbound) increased traffic on Tri-Level – bypass needed			
Rex Whitton Expressway - No good east/west truck route nor north/south – Rex Whitton bottleneck			
Poor Access to Industrial Drive - Narrow Intersections – 179/Industrial Drive, Dix/Industrial			
Improve signage on US 54 EB			
Truck Stop - Some times of evening Kingdom City nearest fuel - Long haul carrier rest areas			
Ellis/US 54/ Route C area			

Appendix 3: National Environmental Policy Act Impact on Transportation Planning -

From The Transportation Planning Process: Key Issues - FHWA

The National Environmental Policy Act of 1969 (NEPA) established a national policy to promote the protection of the environment in the actions and programs of federal agencies. The FHWA and FTA act as lead Federal agencies, and are responsible for implementing the NEPA process and working with state and local project sponsors during transportation project development. The FHWA and FTA NEPA process is designed to assist transportation officials in making project decisions that balance engineering and transportation needs with the consideration of social, economic and environmental factors. This process allows for involvement and input from the public, interest groups, resource agencies and local governments. The FHWA and FTA NEPA process is used as an "umbrella" for compliance with over 40 environmental laws, regulations, and executive orders and provides an integrated approach to addressing impacts to the human and natural environment from transportation projects.

What NEPA documentation is required?

A good decision based on an understanding of environmental impacts is the objective of the NEPA process and a thorough analysis of these impacts as presented in the NEPA document is essential in meeting that objective. NEPA documentation serves several purposes: to disclose the analysis of benefits and impacts to the human and natural environment; to get input from the public and other stakeholders on the proposed project and the environmental consequences; and to inform the final decision.

Different types of transportation projects will have varying degrees of complexity and potential to affect the environment. Under NEPA, the required environmental document depends on the degree of impact. FHWA and FTA, in coordination with the project sponsor, prepare one or more of the following documents for a proposed project:

- Notice of Intent (NOI) - a notice that an environmental impact statement (EIS) will be prepared and considered.
- Categorical Exclusions (CE) - apply to projects that do not have a significant impact on the human and natural environment.
- Environmental Assessments (EA) - prepared for projects where it is not clearly known if there will be significant environmental impacts. If the analysis in the EA indicates the proposed project will have significant environmental impacts, an EIS is prepared.
- Finding of No Significant Impact (FONSI) - If there is not a significant impact, this conclusion is documented in a separate decision document, the FONSI.
- Environmental Impact Statements (EIS) - prepared for projects that have a significant impact on the human and natural environment. Draft EIS (DEIS) and Final EIS (FEIS) documents, with input from the public, provide a full description of the proposed project, the existing environment, and the analysis of

the beneficial and adverse impacts of all reasonable alternatives.

- Record of Decision (ROD) - presents the selected transportation decision analyzed in an EIS, the basis for that decision, and the environmental commitments, if any, to mitigate for project impacts to the human and natural environment.

Regardless of the type of NEPA document prepared, final selection or approval of a proposed project alternative by FHWA and FTA allows the project to be eligible for federal funding of subsequent project activities such as final design, right-of-way acquisition, and construction.

Environmental Links - Plans Incorporated by Reference:

http://www.epa.gov/emefdata/em4ef.home - A single point of access to select U.S. EPA environmental data. This Web site provides access to several EPA databases to provide you with information about environmental activities that may affect air, water, and land anywhere in the United States. With Envirofacts, you can learn more about these environmental activities in your area or you can generate maps of environmental information.

http://www.dnr.mo.gov/gis/index.html - The Missouri Department of Natural Resources GIS Mapping page has clickable maps, statitc maps and GIS data about air, cultural, land, geology and water resources.

http://newmdcgis.mdc.mo.gov – The Missouri Department of Conservations Public Map Gallery is a collection of web maps designed to showcase the conservation management areas and features throughout the state.

http://water.usgs.gov/maps.html - Water resources information from the US Geological Survey: *Maps* and *GIS* Data.

https://hazards.fema.gov/wps/portal/mapviewer - The FEMA Flood Map View.

http://nationalatlas.gov/mapmaker - The National Atlas mapping application contains agricultural, biological, climate, environmental, geological, hydrological and many other map layers.

http://www.nps.gov/state/mo/index.htm?program=all – The National Park Service mapping application provides a gateway into NPS activities in the state including National Register of Historic Places.

Appendix 4: Summary of Federal Transportation Acts -

The Long Range Transportation Plan or as it's come to be known, the Metropolitan Transportation Plan is mandated by the federal government through a series of federal legislation. The Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102-240), the Transportation Equity Act for the 21st Century, enacted June 9, 1998 (Public Law 105-178), the "Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003", (Public Law 105-178), as amended by the TEA 21 Restoration Act, title IX of Public Law 105-206. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Public Law 109-59), enacted in 2005 (and later, the SAFETEA-LU Technical Corrections Act of 2008 (Pub. L. 110-244) signed on June 6, 2008).

The newest legislation, signed into law on July 6, 2012 is the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), and the Metropolitan Transportation Plan mandate continues as one of the strategies in implementing national goals and objectives, as expressed by Congress.[70]

The Unites States Code section pertaining to metropolitan transportation planning of MAP-21, specifically, Subtitle B - Performance Management - Section 1201, Metropolitan Transportation Planning can be found in Section 134 of title 23, United States Code, as amended, and under Section 53 of title 49, United States Code as amended. While the Federal regulations for MAP-21 will be found in the Code of Federal Regulations, 23 C.F.R and 49 C.F.R. respectively.

Appendix 5: Other National Goals, in MAP 21 programs -

Section 53, 49 U.S.C. - National Goals and Objectives: Public Transportation

General Purposes — the purposes of this section are:

1. to assist in developing improved public transportation equipment, facilities, techniques, and methods with the cooperation of both public transportation companies and private companies engaged in public transportation;
2. to encourage the planning and establishment of area-wide public transportation systems needed for economical and desirable urban development with the cooperation of both public transportation companies and private companies engaged in public transportation;
3. to assist States and local governments and their authorities in financing area-wide public transportation systems that are to be operated by public transportation companies or private companies engaged in public transportation as decided by local needs;
4. to provide financial assistance to State and local governments and their authorities to help carry out national goals related to mobility for elderly individuals, individuals with disabilities, and economically disadvantaged individuals; and
5. to establish a partnership that allows a community, with financial assistance from the Government, to satisfy its public transportation requirements.

End Notes:

[1] SEC. 1201. METROPOLITAN TRANSPORTATION PLANNING of MAP-21 amending 23 U.S.C. Section 134
[2] Section 134, 23 U.S.C., subsection h1 and h2 for national performance goals
[3] Or, comparable 23 U.S.C. Section 135 (d)
[4] Section 150 of title 23
[5] appropriated out of the Highway Trust Fund (other than the Mass Transit Account)
[6] http://www.trbcensus.com/urbanized.html
[7] Federal Surface Transportation Assistance Act of 1973
[8] The Metropolitan Transportation Planning Process: Key Issues. A Publication of the Metropolitan Capacity Building Program. http://www.planning.dot.gov/documents/BriefingBook/BBook.htm
[9] 23 CFR 450.104
[10] Detailed in 23 CFR 450.308
[11] Amended May 24, 2011
[12] Participation section from requirements for MTP content 23 CFR November 15, 2012, use as checklist:
(i) The MPO shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under § 450.316(a).
[13] The Metropolitan Transportation Planning Process: Key Issues. A Publication of the Metropolitan Capacity Building Program - http://www.planning.dot.gov/documents/BriefingBook/BBook.htm
[14] Publication and access to MTP section from requirements for MTP content 23 CFR November 15, 2012, use as checklist: needs a home somewhere in this area… (j) The metropolitan transportation plan shall be published or otherwise made readily available by the MPO for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.
[15] Source: http://www.epa.gov/environmentaljustice/basics/ejbackground.html
[16] http://www.epa.gov/environmentaljustice/basics/ejbackground.html
[17] http://www.fhwa.dot.gov/environment/environmental_justice/training/title_vi/title609.cfm
[18] Key Transportation Indicators: Summary of a Workshop, Committee on National Statistics, Janet Norwood and Jamie Casey, Editors, Division of Behavioral and Social Sciences and Education, National Research Council, National Academy Press.
[19] http://www.nap.edu/openbook.php?record_id=10404&page=19. Key Transportation Indicators: Summary of a Workshop.
[20] https://sites.google.com/site/managingmobility/mobilitymanagement101
[21] See CAMPO Coordinated Human Services Transportation Plan
[22] H.R.3 - Section 5303. Metropolitan transportation planning
[23] Highway Functional Classification. (1) The State transportation agency shall have the primary responsibility for developing and updating a statewide highway functional classification in rural and urban areas to determine functional usage of the existing roads and streets. Guidance criteria and procedures are provided in the FHWA publication "Highway Functional Classification--Concepts, Criteria and Procedures." [This publication, revised in March 1989, is available on request to the FHWA, Office of Environment and Planning, HEP - 10, 400 Seventh Street, SW., Washington, DC 20590. 3] The State shall cooperate with responsible local officials, or appropriate Federal agency in the case of areas under Federal jurisdiction, in developing and updating the functional classification. (2) The results of the functional classification shall be mapped and submitted to the Federal Highway Administration (FHWA) for approval and when approved shall serve as the official record for Federal-aid highways and the basis for designation of the National Highway System. Federal-aid policy guide december 19, 1997, transmittal 20, 23 cfr 470a, OPI: HEP-11 Subchapter E - Planning Part 470 - Highway Systems Subpart A - Federal-aid Highway Systems - Sec. 470.105(b)
[24] 23 usc Section 103, as of Dec. 27, 2012
[25] 23 usc Section 103 as of Dec. 27, 2012
[26] http://www.kansascity.com/mld/kansascity/news/local/16332502.htm
[27] http://www.mdn.org/2006/STORIES/BARGE2.HTM

[28] Missouri River Freight Corridor Assessment and Development Plan, October, 2011.
[29]http://www.stltoday.com/news/local/govt-and-politics/missouri-running-up-debt-to-run-amtrak-trains/article_ac0c2a5c-4750-11e1-b825-001a4bcf6878.html
[30] Environmental Quality Commission 2011 Annual Report. April, 2011
[31] ..\..\..\..\..\..\SIDEWALKS\EQC Work on Sidewalks\eqc 2012sep20-matrix.docx
[32] NCHRP Report 525
[33] 49 U.S.C. Section 5329/MAP Section 20021
[34] 23 CFR Section 450.322(h)
[35] For more information, go to http://contribute.MoDOT.mo.gov/safety/documents/HSPFY2013.pdf
[36] http://contribute.MoDOT.mo.gov/safety/documents/HSPFY2013.pdf
[37] http://sema.dps.mo.gov/about/
[38] http://sema.dps.mo.gov/programs/empg.asp
[39] Callaway County, Missouri Natural Hazard Mitigation Plan, February, 2005.
[40] Cole County/Jefferson City Emergency Operations Plan. January, 2004.
[41] Intensity VII - Difficult to stand. Noticed by drivers. Hanging objects quiver. Furniture broken. Damage to masonry, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices, also unbraced parapets and architectural ornaments. Some cracks in masonry. Waves on ponds, water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.
[42] Callaway County Natural Hazard Mitigation Plan, February, 2005.
[43] http://www.planning.dot.gov/documents/briefingbook/bbook.htm#13BB
[44] http://www.fhwa.dot.gov/realestate/cp_state.htm
[45] Cole County Master Plan Section 11.3.5
[46] Transportation Research Board. Quantifying Congestion User's Guide. Report 398 (Washington D.C., National cademy Press, 1997). Vol 2. 1.
[47] East West Gateway Coordinating Council. September 21, 1998
http://www.ewgateway.org/trans/LongRgPlan/TRII/CongesPaper/congespaper1.htm
[48] Transportation Systems Management & Operations: Strategies and Projects Eligible for Funding under the Federal-Aid Highway Program *(Section 1103)
[49] http://ops.fhwa.dot.gov/access_mgmt/progplan.htm#toc1
[50] http://www.accessmanagement.info/pdf/IdahoMPOCompassAMToolkit2008.pdf
[51] http://www.fhwa.dot.gov/realestate/cp_state.htm#fsp
[52] http://safety.fhwa.dot.gov/hsip/tsp/
[53] http://www.mireinfo.org/
[54] http://safety.fhwa.dot.gov/tools/data_tools/fhwasa09002/
[55] as per 23 CFR 450.322f(10)(iv)
[56] Jefferson City Transit Development Plan. Transystems Corp., March 2006.
[57] Jefferson City Transit Development Plan. Transystems Corp., March 2006.
[58] http://www.mptaonline.com/transit.shtml
[59] http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=3180&z=95
[60] http://fta.dot.gov/grants/13093_3554.html
[61] http://tifia.fhwa.dot.gov/Fact Sheet: Transportation Infrastructure Finance and Innovation Act
[62] http://fta.dot.gov/documents/MAP-21_Fact_Sheet_-_Urbanized_Area_Formula_Grants.pdf
[63] Statutory References - 49 U.S.C. Sections 5307, 5336, and 5340 / MAP-21 Sections 20007, 20026
[64] http://fta.dot.gov/documents/MAP-21_Fact_Sheet_-Enhanced_Mobility_of_Seniors_and_Individuals_with_Disabilities.pdf
[65] Statutory References - 49 U.S.C. Section 5310 / MAP-21 Section 20009
[66] Statutory References - 49 U.S.C. Section 5326 / MAP-21 Section 20019
[67] http://www.fhwa.dot.gov/innovativeFinance/ifqvol13no2.htm
[68] http://www.innovativefinance.org/topics/finance_mechanisms/bonding/bonds_garvees.asp

[70] PL 112-141, July 6, 2012, Sec. 20005 Metropolitan Transportation Planning Section (d)(1)